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MAY DAY—CHILD HEALTH DAY—1925

THE purpose of the May Day celebration is to focus attention upon our most precious national asset—our children. The tie between the child and all adult life is at once the strongest and the gentlest element in human nature. Greater sacrifices are made for children than for ourselves; greater happiness is derived from these sacrifices than from all the triumphs that personal success can bring. Our daily labors, whether in the home, or in the outside world of competition for material things, or even in the search for culture and for spiritual advancement, derive largely from the conscious or unconscious impulse to cherish the child and to hold the child's affection and respect.

Lest, in the hurry and strain of life, we should ever forget these obligations, it is well for us to recall the child's bill of rights, which may be expressed as follows:

"The ideal to which we should drive is that there should be no child in America that has not been born under proper conditions, that does not live in hygienic surroundings, that ever suffers from undernutrition, that does not have prompt and efficient medical attention and inspection, that does not receive primary instruction in the elements of hygiene and good health. It is the purpose of these associations to supplant ten policemen with a single community nurse."

It is for the reiteration of this truth, for the celebration of it until it shall have become a living fact, that we urge all people of good will to join in the celebration of May Day as Child Health Day.

Herbert Hoover

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REWARDS FOR NURSING MOTHERS

TODAY, when breast feeding of infants is being so earnestly advocated, this eighteenth century painting by Boiret is interesting because it presents a glorification of the French system of granting rewards to mothers who consent to nurse their babies.

Methods of promoting breast feeding were practiced in ancient times and in the Middle Ages through religious ordinances, through penalties and through various forms of persuasion. But the attempt to use a system of benefits and rewards to induce mothers to nurse their offspring was begun in France during the period to which this picture belongs.

What Is Rheumatism?

SOLOMON STROUSE

IF YOU were to ask 100 persons in succession if they have rheumatism, you would get a surprisingly large number of affirmative replies. If you continued your questions with the object of discovering what the popular idea of rheumatism is, you would find a wide variety of complaints enumerated.

I tried out this idea recently, and then tabulated the results in the words of the persons questioned. Pain in the back, pain in the foot, headaches, pain in the muscles, acute inflammation of the joints, pain in the chest on climbing stairs, all were called rheumatism; the only common denominator for the answers being "pain." Since pain is one of the most dramatic forces of life it is not surprising to find so many persons recalling painful episodes, and, as you will shortly see, it is not strange that the words pain and rheumatism in many minds have become almost synonymous.

So close is this association and so common the complaint of rheumatism that the medical student trying to get the story of a patient's disease is given instructions to delve more deeply into every complaint of "rheumatism." He is taught to ask many questions, such as relate to where the pain is, how old the patient was when it came on, whether it was acute, whether the joints were inflamed and changed from their normal shape, until some idea of what the patient means by "rheumatism" is evolved.

Then he analyzes the information, and finds that what the patient really had was flat feet, acute rheumatic fever, or chronic arthritis.

Muscle Rheumatism Is Not Common

Rheumatism, according to the dictionary, is a constitutional disease marked by inflammation of muscles and joints and attended by pain in the muscles or joints. Arthritis is inflammation of a joint. So then, speaking broadly, we can have only two kinds of rheumatism, that affecting the muscles and that affecting the joints. According to the dictionary, both kinds of rheumatism are "inflammations" and both are painful.

Not every one knows what inflammation means, but every one does know what pain is. As a matter of fact many pains originating at different points in the body seem to lodge in the muscles and hence are called rheumatic.

If, for instance, a man falls on his shoulder he may injure his muscles or the structures lying under the muscles. In either case the pain may seem to be in the muscles. If the injury is not severe, he may not consult a physician and may even forget about the accident until years later when he develops "rheumatism" of the shoulder. Then the wise physician will take an x-ray picture of the shoulder and will find that the fall had resulted in an injury of the "oil cup" over the shoulder joint, and the patient instead of having to suffer pain and inconvenience for years can get well in a short time.

Pain is often referred from some deep-lying organ like the stomach to a superficial organ like the skin or muscle. The mechanics of this referred pain are complex but, to explain rather crudely, the nerves to certain organs and certain superficial areas arise in the same part of the spinal cord, so that pain in the deep organ may *seem* to arise in the superficial area.

Confusion also results because pain may extend *directly* from the organ affected along or toward another area, such as the pain of certain kinds of heart disease, which seems to start in the muscles of the left chest and extend down along the muscles of the left arm. Another example of the same kind of pain is found in certain diseases of the blood vessels of the legs, in which the disease is high up in the leg and the pain is in the foot.

May Be Flat Feet

Many persons think they have rheumatism of the legs or back when they have flat feet or broken arches. A story is told of a young man who fell as he was escorting his lady down the aisle of a theater. Much chagrined and fearing all sorts of diseases, he delayed his visit to a doctor and stayed in bed nursing his illness, which he imagined to be serious rheumatism. When finally he called on a physician his flat feet were discovered, and his illness disappeared in a pair of properly adjusted shoes.

Because pain is such a common symptom of so many illnesses and is likely to be referred to the muscles or to the limbs, it can easily be understood why many individuals say they have or have had rheumatism. But, as stated previously, the term rheumatism should be used only to refer to two general conditions: inflammation of the muscles and inflammation of the joints.

Pain in the muscles is called "myalgia" and pain in the joints "arthralgia"; the symptom of pain alone is not sufficient to warrant the diagnosis of rheumatism. In order to make a correct diagnosis of rheumatism, a careful history must be obtained and a careful examination must be made. The questions which the medical student asks will narrow down the search by centering the examination more closely to certain regions. It will also disclose other points of great diagnostic interest, but the final word comes from the examination.

As will be pointed out later, most cases of rheumatism are secondary, that is, they arise from trouble elsewhere in the body. So that, much to the surprise of the unsophisticated patient, the examination will have to be complete and will embrace much that may seem unnecessary.

In some cases examination of the body excreta and of the blood, x-rays of the joints, the teeth, or even of the whole gastro-intestinal canal, may be necessary in order to be certain of what the disease is.

Some persons seem to be of the opinion that rheumatism can be diagnosed and treated on the mail-order basis, but when the list of the various kinds of rheumatism and their various causes are seen it must be clear that nothing can be accomplished without a truly scientific inquiry.

Arthritis Is Commonest Form

Joint rheumatism, or arthritis, is the commoner of the two kinds of rheumatism, and although a great deal of study has been made of this disease medical men still are in the dark concerning many of its features. There is even yet no classification which satisfies every one, and doctors cannot always put each case in its proper niche.

Acute arthritis, sometimes called acute rheumatism or acute rheumatic fever, occurs among persons in any locality but more often in temperate climates. It is most apt to attack young persons between 15 and 35 years, although it does occur in children. It may come on like a "bolt from the blue" but frequently it follows an attack of sore throat or tonsillitis. It is characterized by a chill, fever, painful, red and swollen joints, especially in the knees, ankles, wrists, elbows or shoulders.

In almost one half of the cases true valvular heart disease occurs as a complication. This makes the disease a really serious disorder, for although most persons recover from the acute arthritis many are left with chronic heart disease. Occasionally what seems to be acute rheumatic fever turns out to be only an acute onset of one of the chronic forms. Although acute rheumatic fever practically never goes into chronic joint disease, it is the most dangerous form of arthritis because of the tendency to be associated with serious heart disease, and because one attack is likely to be followed by others.

The cause of this disease is surely a germ, and it is probable that the germ in many instances enters the body through the tonsils or perhaps the teeth. Any one who has had an attack of acute rheumatic fever has to take good care of himself in order to prevent other attacks. General care in living, good food, dry feet, avoidance of chills and "catching cold," plenty of sleep, proper clothing summer and winter, all are urgent needs.

Much has been written concerning the necessity of removing the tonsils and the teeth in this disease; yet not everything that has been written has been proved. If definitely diseased tonsils or definitely infected teeth are found they certainly should be removed, for even if such diseased spots do not cause rheumatic fever, they do cause the patient to be in poorer condition to resist infection. If the tonsils seem healthy, perhaps this disease offers a real excuse for their removal, since the disease so often follows tonsillitis, and since it is not always easy to tell whether tonsils are diseased.

With the teeth it is a different story. The teeth must be kept in good condition, and when diseased teeth are found they should receive immediate attention from the dentist, but just because a person has had an attack of rheumatic fever is not a reason for removing all teeth.

Other rarer forms of acute arthritis are met with, but as these are likely to turn into chronic disease they can be mentioned with chronic arthritis.

Teeth and Tonsils Are Not Only Culprits

In younger persons many cases are characterized by "skipping" pains from joint to joint, with swelling of the joint. Any joint, including those of the spinal column, may be involved. This group is notably caused by germs or infectious agents although as yet no specific germ has been found. This type of case frequently is associated with infected areas somewhere in the body like tonsils, appendix, gall-bladder or other organs, and this is the kind of arthritis which *may* be cured by removal of the infected area. The infected area is called a "focus of infection," and it may be situated almost any place in the body. Not by any means are teeth

and tonsils the sole possible foci of infection. Nor is it true that in every case the removal of an infected area results in cure, but it is true that in a very large number of cases the results are brilliant, provided great care is used to find a real focus.

Rheumatic joints are found in some definite diseases like tuberculosis, gonorrhea, or syphilis; and of course the treatment in these cases is the treatment of the original disease. Gout is an arthritis with chalk deposits around the joints and often on the lobe of the ear. This is probably due to some disturbance of the chemistry of the body. Fortunately in America at the present time it is a comparatively rare disease.

There are still other kinds of arthritis—for instance, that seen so frequently in elderly women who rather suddenly find that their knees give way when they walk. This is a chronic, slowly developing arthritis which may be present for years without producing any symptoms until excessive use of the knee joints causes an acute irritation. This type of arthritis usually yields fairly easily to proper treatment.

Deformed Joints Present Difficulty

Without going into all the other kinds of arthritis it is necessary to discuss one group that stands by itself as an unsolved mystery in medicine. This is called "arthritis deformans," because as the disease progresses it changes the appearance of the joints until they actually look deformed. If many joints are involved the whole individual becomes deformed, fingers are swollen, joints are crooked, the back is bent like the hunchback of Notre Dame.

Medical men frankly do not know the cause of this disease and frequently are at a loss for proper methods of treatment. Many theories and many methods of treatment are in vogue; none can be said to be certain. Foci of infection are hunted for and removed, the diet and general habits carefully investigated and improved; in some instances the disease is stopped, in others it marches on its way like a terrible invader damaging all it meets.

So far only joint rheumatism has been mentioned. How about muscular rheumatism, "rheumatics," neuralgia and the other vague things included in the name rheumatism?

Persons do have all sorts of vague pains here, there, everywhere—yet muscular rheumatism seems to exist very rarely. In some cases of true arthritis pains in the muscles occur, but in most instances muscle pains arise somewhere else in the body, as has already been explained. It is foolish to waste time on things which are not, so when a person has neuralgia, or rheumatism in the muscles, the only sensible thing to do is to look for a cause and treat that. Even with that lurking disaster called "lumbago" which hits a man in the back and knocks him out, the muscles are probably not the original instigators of the blow. If true muscular rheumatism exists, lumbago deserves the title; but in many cases lumbago is associated with a cold in the head, with sore throat, with infection elsewhere in the body.

Much nonsense and much unproved tradition has entered and obscured the field of food and rheumatism. You hear about meat causing rheumatism, about acids in the food being harmful; those who so talk frequently do not know what acid foods are. Meats are acid foods because after they are burned up in the furnace of the body their ashes are acid, and occasionally an excessive meat eater may complain of pains in various parts of the body. Fruits, even sour grapefruit juice, are not acid, because when they are burned in the body their chemical effect is the opposite of acid. It is probably safe to say that food never *causes* true rheumatism but a poorly balanced diet may be a factor in the disease.

Overeating to the point of obesity is harmful in many ways. The extra weight may put an extra strain on joints and make them susceptible to the poison of rheumatism. That kind of arthritis called gout is common in high livers and heavy drinkers, but such a thing as "poor man's gout" also exists.

Each Sufferer Needs Special Study

This article was not intended as a medical treatise; it has attempted to show what is not known as well as what is known about the various conditions commonly called rheumatism. A great deal is known, and a great deal can be done for the sufferer from true rheumatism or arthritis. But what is known in general is of no value for the particular case unless that case is properly studied and correctly classified.

Untold harm can be done the rheumatism sufferer by massaging a joint that requires rest; years of unnecessary pain may be the fate of the individual who reads advertisements of cures for a rheumatism which he has not; lives are lost by self-made diagnoses of rheumatism when bone tumors or other diseased conditions are the real cause of the pain. Whole books have been written on pain; how absurd it is to read descriptions of all kinds of pain which can be cured by patent medicines, by insincere advice of the hangers-on of pseudo-medical cults whose only aim is to extract the money of their victims.

Pain may be relieved by many means, but as long as the cause of the pain is not discovered, and when possible removed, medicines or manipulations are useless, and at times dangerous. "Rheumatism" always needs to be defined more clearly. If the solving of the problem requires time for careful study and detailed analysis, it is worth the effort in the benefits gained.

Lengthening the Life Span

LOUIS I. DUBLIN

EIGHTEEN years have been added to the life span of the average person in the United States since 1855. At that time, the average duration of life was only about forty years; now it is fifty-eight.

In the short stretch of two generations the newer medicine and its offspring, the public health movement, have become active factors in American life. Even in the brief period of a decade, from 1900 to 1910, four years were added to the average length of life, and the end is not yet in sight. There is every indication, indeed, that material gains will continue to be made as the program of life extension is more and more developed through the cooperation of the medical profession, the public and civic authorities.

Life extension and disease prevention go hand in hand. With every year that is added, the suffering and misery that accompany illness are minimized. These added years are productive years and mean increased prosperity and well-being for the great mass of the people. At present our average life span is twice that of the people of British India and of certain other backward countries. When sanitary measures prevent the death from typhoid fever of a young adult, as many as thirty-five or forty years of productive work may have been saved to the community.

Adult Worth $500 a Year

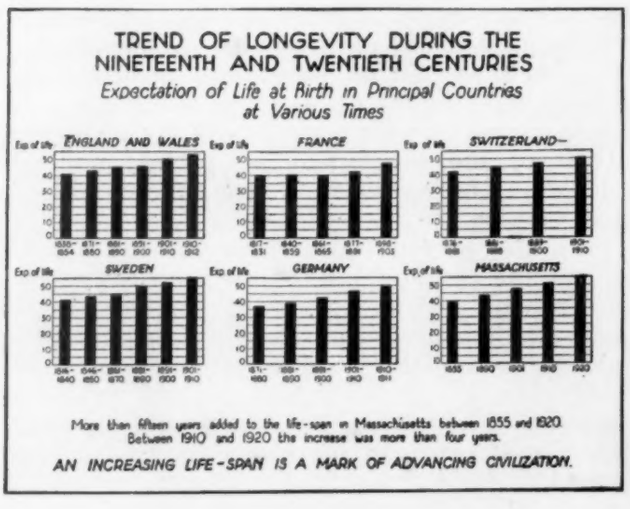
Every year of an able bodied adult is worth at least $500 in excess of his personal requirements, to say nothing of the spiritual gains resulting from the maintenance of family ties. Much of the improvement that we find in child welfare has undoubtedly come about through this source. The gains to the public welfare resulting from the work done by the medical and public health professions during the last fifty years are incalculable.

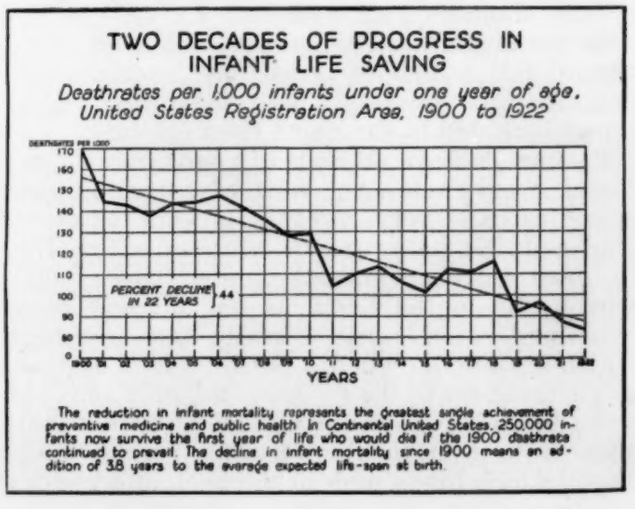
The extension of the life span has been achieved primarily through the development of the sciences of preventive medicine and of public health, and to this the greatest credit is due. There have been other factors: the growth of inventions and of industry, the opening up of new and rich countries and the extension of the agencies of democratic government.

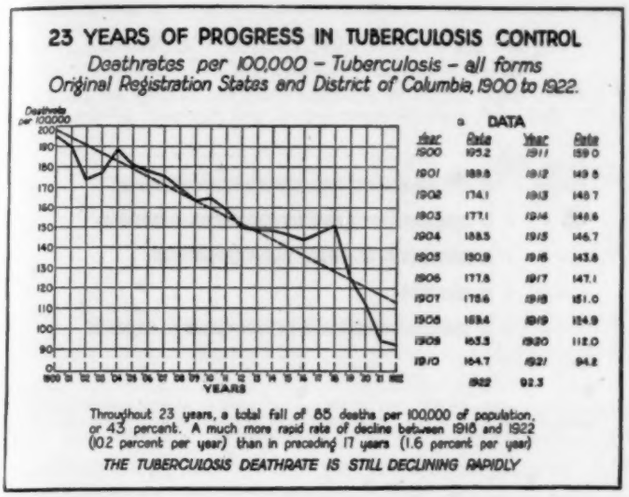
Here are a few of the most important achievements, and how these gains may be continued. How can the medical profession and the public be taught to cooperate in the largest service that can be rendered to the community?

Should Lower Baby Death Rate to 3%

The most significant single achievement has been the reduction of infant mortality. In the past, half the babies born did not attain their first birthday. In China, and even in some European countries during the period of the World War, if children were born in large numbers, they died almost as numerously. Here was a terrible waste of human life and a source of misery for the unfortunate parents. Today, on the other hand, only 7 or 8 per cent. of American babies fail to reach their first birthday.


TREND OF LONGEVITY DURING THE NINETEENTH AND TWENTIETH CENTURIES
Expectation of Life at Birth in Principal Countries at Various Times
ENGLAND AND WALES
FRANCE
SWITZERLAND
SWEDEN
GERMANY
MASSACHUSETTS
More than fifteen years added to the life-span in Massachusetts between 1855 and 1920. Between 1910 and 1920 the increase was more than four years.
AN INCREASING LIFE-SPAN IS A MARK OF ADVANCING CIVILIZATION.


TWO DECADES OF PROGRESS IN INFANT LIFE SAVING
Deathrates per 1,000 infants under one year of age. United States Registration Area, 1900 to 1922
PERCENT DECLINE IN 22 YEARS 44
YEARS
The reduction in infant mortality represents the greatest single achievement of preventive medicine and public health in Continental United States. 250,000 infants now survive the first year of life who would die if the 1900 deathrate continued to prevail. The decline in infant mortality since 1900 means an addition of 3.8 years to the average expected life-span at birth.


23 YEARS OF PROGRESS IN TUBERCULOSIS CONTROL
Deathrates per 100,000 – Tuberculosis – all forms
Original Registration States and District of Columbia, 1900 to 1922.
Deaths per 100,000
YEARS
DATA
Year Rate Year Rate
1900 195.2 1911 159.0
1901 188.8 1912 149.8
1902 174.1 1913 148.7
1903 177.1 1914 148.6
1904 188.5 1915 146.7
1905 180.9 1916 143.8
1906 177.8 1917 147.1
1907 178.6 1918 151.0
1908 168.4 1919 134.9
1909 163.3 1920 112.0
1910 164.7 1921 94.8
1922 92.3
Throughout 23 years, a total fall of 85 deaths per 100,000 of population, or 43 percent. A much more rapid rate of decline between 1916 and 1922 (10.2 percent per year) than in preceding 17 years (1.6 percent per year)
THE TUBERCULOSIS DEATHRATE IS STILL DECLINING RAPIDLY

As more and more emphasis is placed on prenatal care, on the discovery and treatment of syphilis in parents, and, most important of all, on the training of physicians for better obstetrical service, even greater gains will be made. It should be possible for the infant mortality rate of the whole country to be reduced to the low figure of 3 per cent. When that is accomplished, another year and a half will have been added to the average life span.

The reduction of tuberculosis is another vivid illustration of the effectiveness of the public health campaign of the last three or four decades. This disease is now destroying life at a rate less than half that which prevailed in 1900, which effects a saving of 100,000 lives a year to the people of the United States. And equally significant, the deaths when they do occur are at a much higher average age. This means that when a father now dies of tuberculosis, he is usually not leaving a young wife and a few babies unable to take care of themselves, but rather a family with grown-up children.

Typhoid fever, a scourge in many of our communities twenty or more years ago, has been reduced to such minor importance that many sanitarians look forward to its complete eradication in the near future.

The communicable diseases of childhood, including diphtheria, scarlet fever, measles and whooping cough, are rapidly coming under the control of the newer medical practice. The general application of the serum treatment, first developed for diphtheria, is speedily being extended to protect children against scarlet fever and possibly against the other children's diseases. The further application of medical discoveries in this field holds out great promise for the future.

Diseases of Middle Life Not Checked

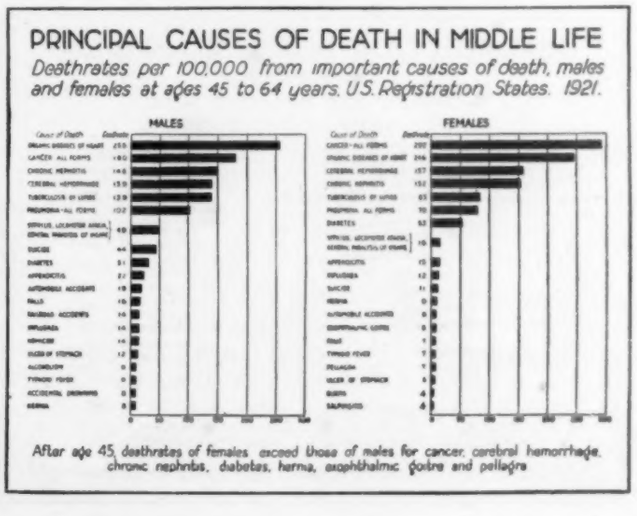
But, in the face of these remarkable medical achievements, there remain certain conditions against which medicine seems, to date, to have been powerless. These are the diseases of middle life—heart disease, the diseases of the kidney and of the blood vessels. They are usually comprehended, because of their interrelationship, under the general term of cardio-vascular-renal diseases. They are more often than not the effect of the wear and tear of tissue rather than the result of infection. They reflect the type of personal hygiene practiced by individuals.

The first fifteen years of this century gave clear indications of increasing rather than declining death rates from these conditions. The medical profession and the public health movement directed a great deal of attention to them because of their menace against middle life. Men and women of fifty should be at the height of their productive careers, vigorous and forward-looking, rather than the subjects of incessant medical tinkering—worn out machines looking to death for relief from their invalidism.

Fortunately, in the years following the war, an improvement appears to have occurred in these conditions as causes of death, and there now seems to be a distinct possibility for a material reduction in their incidence. That is the great opportunity for preventive medicine in the immediate future.

Must Discover Diseases Early

The first step is then to develop an extensive plan for detecting diseases which prey on persons in middle life, before they can do the damage which results in premature old age and death. The periodic medical examination is the most promising step to this end. Already thousands of persons are regarding such examinations in much the same way as the periodic examination of their teeth. But, of course, far greater numbers have not as yet realized the importance of such annual physical examinations. It remains for the public to realize the value of this routine measure. Every day physicians have it in their power to aid their patients in adding years to their lives.


PRINCIPAL CAUSES OF DEATH IN MIDDLE LIFE
Deathrates per 100,000 from important causes of death, males and females at ages 45 to 64 years. U.S. Registration States. 1921.
MALES
FEMALES
After age 45, deathrates of females exceed those of males for cancer, cerebral hemorrhage, chronic nephritis, diabetes, hernia, exophthalmic goitre and pellagra

That this is no idle conjecture is indicated clearly by the disclosures of the periodic medical examinations now being made and by the beneficent results which follow such examinations. Among 17,000 adult white males recently examined, some 13 per cent. were found to be overweight by more than 20 per cent. above the usual standards for height and age; and overweight is the most fruitful source of premature breakdown of the heart, blood vessels and kidneys.

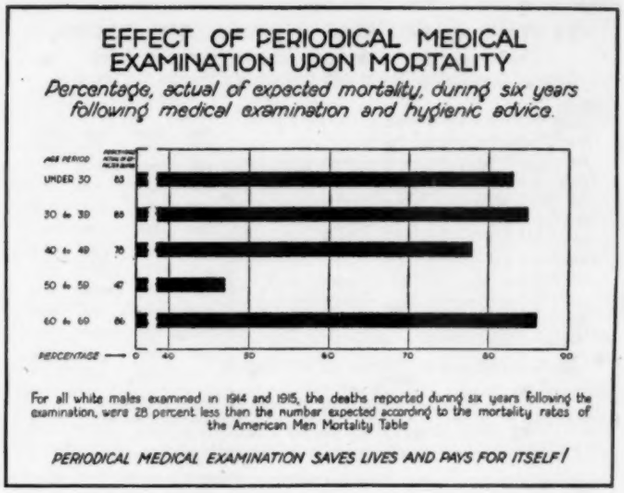
"Heavy dentistry," with suspected focal infection, was found in 42 per cent. of the cases. More than a quarter of these adults had enlarged, septic or buried tonsils. High blood pressure was discovered in 7 per cent. of the cases.

These are but samples of the findings and suggest what a fertile field exists for substantial improvement in the prospects of persons apparently in good health. Most of these persons were apprised of their defects for the first time at these examinations.

It is interesting to observe, also, how many individuals report histories of serious illness such as typhoid fever, pneumonia, pleurisy and rheumatism—sources of future impairments which physicians should be on the watch to discover early. That periodical health examinations should begin in early adult life is indicated by the rapid increase of the percentages of impairment with advancing age. The older the group examined the larger the number that are found previously impaired and in need of urgent medical care. Young persons, advised in hygiene and treated accordingly, have a good opportunity to eradicate an adverse condition and by doing so will add not only to their efficiency but to their longevity.

Health Exams Do Cut Death Rate

Fortunately we can, even now, show that the periodic health examination reduces mortality. In 1914, the Metropolitan Life Insurance Company inaugurated a system of free periodic health examinations for its Ordinary policyholders. In 1920, the after-history of the first 6,000 persons examined was studied. According to prevailing mortality tables, 303 deaths should have occurred in this group; and yet only 217 actually took place. This means a reduction of 28 per cent. in the death rate, more than enough in reduced claim payments to pay for the cost of the examinations.

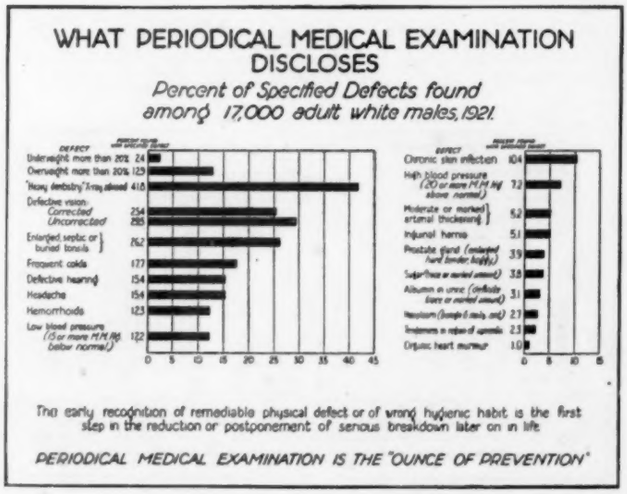

EFFECT OF PERIODICAL MEDICAL EXAMINATION UPON MORTALITY
Percentage, actual of expected mortality, during six years following medical examination and hygienic advice.
AGE PERIOD
UNDER 30
30 to 39
40 to 49
50 to 59
60 to 69
PERCENTAGE
0
40
50
60
70
80
90
For all white males examined in 1914 and 1915, the deaths reported during six years following the examination, were 28 percent less than the number expected according to the mortality rates of the American Men Mortality Table
PERIODICAL MEDICAL EXAMINATION SAVES LIVES AND PAYS FOR ITSELF!

The situation is at once a challenge and an opportunity for the medical profession. More and more must medical practice rely on the efficacy of thorough physical examinations. More and more these should become a routine for doctors at the request of the patient. Physicians will thus be teachers of personal hygiene.

Physicians will thus become counselors of their clientele, showing their patients how to avoid overweight, how to conserve energy and how to follow other simple rules of living which will obviate impairment of the vital tissues. But to accomplish these ends it will be necessary for the medical profession to develop generally better and more standardized technic for the physical examination.

The public must also cooperate, turning in larger measure to their family physicians for examination while well and not waiting for illness as an excuse for their visit. The prevention of sickness is becoming rapidly a most important service which the public can receive from the physician.

There is also much to be said for the right attitude of mind which the lay public should have toward their physicians. They must not leave everything to the doctor. No periodic physical examination will, in itself, keep people well or make them well unless they will play the game with their doctors cooperating in every way; keeping themselves up to par through serious attention to personal hygiene. It is a game well worth playing and the stakes are high—the possible addition of ten years to the span of life.


WHAT PERIODICAL MEDICAL EXAMINATION DISCLOSES
Percent of Specified Defects found among 17,000 adult white males, 1921
DEFECT
Underweight, more than 20% 24
Overweight, more than 20% 125
"Heavy dentistry" X-ray showed 416
Defective vision: Corrected 254, Uncorrected 285
Enlarged, septic or buried tonsils 262
Frequent colds 177
Defective hearing 154
Headache 154
Hemorrhoids 123
Low blood pressure (15 or more M.M.Hg below normal) 122
0 5 10 15 20 25 30 35 40 45
DEFECT
Chronic skin infection 104
High blood pressure (20 or more M.M.Hg above normal) 72
Moderate or marked arterial thickening 52
Inguinal hernia 51
Prostate gland (enlarged, hard, tender, lobby) 39
Superficial varicose veins 38
Albumin in urine (definite trace or marked amount) 31
Heart murmur (Except functional murmurs) 27
Impairment in region of appendix 23
Organic heart murmur 10
0 5 10 15
The early recognition of remediable physical defect or of wrong hygienic habit is the first step in the reduction or postponement of serious breakdown later on in life
PERIODICAL MEDICAL EXAMINATION IS THE "OUNCE OF PREVENTION"

Ridding the Household of Insect Pests

LOUIS GERSHENFELD

THERE are many popular misstatements concerning the value of various agents that may be employed to destroy insect pests. The destruction of these pests is a function so important to the protection of public health and to the beauty and value of our surroundings that the materials and methods employed must be known to be reliable.

In this article, the first of a series, I will consider the most important agents and methods that may be used in ridding a home of the commonly found insect pests, such as ants, bedbugs, carpet beetles, cockroaches, fleas, flies, mosquitoes and moths.

Justification for an unyielding campaign against these pests lies not only in the fact that they are annoying and troublesome, but that many of them destroy our possessions, while others assist in the spread of disease. It would be impossible to make an estimate of the great suffering, misery and monetary losses that result from their presence, but let it be emphasized that failure to institute immediate efforts toward eradication will eventually result in serious menace to health and comfort.

Unfortunately, many persons consider it a disgrace to be visited by some of these pests. One may learn if he studies their life histories that some of these insects may gain access to a dwelling owing to their migratory habits, while others are brought into a home with any article coming from the outside. Failure to attempt to eradicate them is due either to ignorance or a mistaken sense of shame. Infestation by these insects frequently becomes a neighborhood or communal affair. To insure permanent relief, it is at times necessary to take united action, and the hearty cooperation of every housewife or dweller in the locality may be needed. More frequently assistance is required from the owners of adjacent property only.

Destroy the Breeding Places

The most important principles to keep in mind in ridding a place of insects are these: *If there is no food for insect pests, they will not remain. If there are no breeding places, there will be no offspring.* The whole problem of combating many household pests successfully is in finding and destroying the breeding places. Efforts directed against adult insects are usually more costly and generally less successful in decreasing their numbers, than if the same energy is spent in fighting their breeding places.

Uniform cleaning methods in the home will materially lessen the number of breeding places and, in turn, the number of insects. A good working principle is: "to keep clean is better, cheaper, safer and more effective than to make clean, after vermin and dirt have accumulated."

Dust and dirt allowed to remain in any place is soon covered with grease, and foci for breeding places are thus formed. Sweeping and cleaning can be and should be made as dustless as possible. One should remove the dust; not scatter it. Orderly arrangement of materials in closets not only makes cleaning easier, but it becomes a simple matter to detect insects and their breeding places. Closets as well as cellars, basements, and other storage places should be regularly ventilated.

All crumbs and food particles in the pantry and kitchen should be cleared away. Food should be kept in covered containers. Garbage, filth and dirt should be kept in closed receptacles and removed at frequent intervals. Decaying vegetable or animal matter in or near the house should be removed or treated with proper destructive agents, some of which will be mentioned later.

No Stagnant Water

Buckets, barrels or other receptacles around the home should be either covered, screened, or turned upside down, and no stagnant water should be allowed to stand in or around the house. Roof gutters, cesspools, sewers and other traps should be examined frequently to make sure they are not clogged, thus preventing the accumulation of water. Water in pans or troughs for domestic animals and pets should be changed frequently.

Cottages, bungalows, dwellings with porches, temporary and permanent buildings should be protected (even if only by a screen arrangement), so that cats, dogs, poultry and other livestock will be kept from wandering beneath the premises. Pets, such as cats and dogs, should be provided with sleeping places that can be kept clean. It is best to supply them with a blanket or mat to sleep on; the latter can be shaken frequently, thus preventing the collection of dust.

If, at any time, a home is infested with insect pests, it is better to burn the dust and refuse

collected when cleaning, rather than to throw it in a container to be taken away. Carpets should not be tacked down to the floor. They, as well as clothing and other apparel in closets, chests and trunks, should be removed at least once or twice a year, shaken well, and allowed to receive the benefit of the air and sunshine for a short period of time. Cracks and holes in the floor, walls or around pipes should be filled in with suitable filling materials.

Windows and outside doors should be carefully screened, especially during the warm months. It is a common occurrence to find that a person has taken the greatest precaution to screen the entire house, with the exception of windows and doors leading into the cellar or basement. Screens that are twenty or more meshes to the inch are recommended, as otherwise mosquitoes may pass through the netting.

Exposed foodstuffs, not only in homes but in shops selling food supplies, should be screened or otherwise covered so that flies cannot gain access to them. In public places, the free use of electric fans will help keep flies away, because flies cannot stand the draught which is created.

[*Continued in June issue.*]

German Measles

JOHN RUHRÄH

GERMAN measles, or rubella, is a curious disease chiefly occurring in childhood, but not necessarily so. In large cities there is always some of it and every now and then it takes the form of an epidemic.

It is known as a distinct disease because a person may have German measles and at a subsequent date have scarlet fever and also measles. Just as chickenpox and smallpox are cousins, so rubella and measles are closely related.

One Does Not Have Disease Twice

The cause of German measles has never been determined. It is usually transmitted by direct contact, but there are cases on record in which it has been contracted from sleeping in a bed previously occupied by a person with German measles. In most cases, the germ causing the disease probably dies shortly after it leaves the body. The disease is contagious early, perhaps even before the eruption appears and the contagion lasts as long as the eruption. Very young infants often are immune but it is seen most frequently in children and young adults, and cases have been reported among the aged.

If a person has an attack, he becomes immune so that if later he is exposed he very rarely has it the second time.

The disease comes on usually from fourteen to twenty-one days after the child has been exposed. While, as a rule, the child is not very ill, sometimes he may be quite prostrated. Generally the first sign of the disease that is noted is the rash. At the time this comes on, or just before, there is usually headache, backache, loss of appetite, nausea and sometimes vomiting. Most children are drowsy and irritable. There is usually not much fever; for from two to four days, the temperature rises to 100 or 102, being a little higher in the evening, but it has been known to mount very high.

German measles has two special features; one is the enlargement of the lymph nodes, or glands, all over the body but especially those in the back of the neck. These may be as large as hazel nuts or even pigeon's eggs, so large that they can be seen across the room. The swelling comes on with the rash, sometimes even before it and gradually subsides about the time the rash fades.

The eruption may resemble either scarlet fever or measles; sometimes it resembles both diseases in the same patient. Often a measles-like rash appears on the face and most of the body whereas on the parts on which there is pressure, such as on the buttocks, the thighs and around the waist (in case a tight belt is worn) there may be a uniform blush not unlike the rash seen in scarlet fever.

The rash usually lasts from three to four days, although sometimes from six to seven, and after it fades there is a brownish discoloration of the skin that disappears completely in from one to three weeks. There is an eruption in the mouth, or an irregular rose red spot, usually occurring over the soft palate and uvula. It does not last long and may be missed altogether.

Difficult to Diagnose

German measles usually is a mild disease, but it may be very severe, affecting the heart, or leading to pneumonia or severe diarrhea. Occasionally there are other complications.

The diagnosis of German measles is a matter for a trained clinician, as the physician who has had actual experience with the disease is called. It is difficult enough for one who has spent a life time in studying the infections to diagnose and, if this is the case, parents need not be expected to distinguish the disease from scarlet fever, measles, some other infectious disease that may resemble it, or from the rashes produced by drugs, hives and certain foods.

The History of Spectacles

JAMES E. LEBENSOHN

PERCHANCE the reader is one of the myriads of persons indebted to spectacles for increased efficiency and greatly added comfort. He, then, may be interested in some historic and amusing incidents in their development.

The beginnings of spectacles are veiled in medieval mystery. Toward the end of the thirteenth century, they appeared both in China and in Europe, but the differences between the earliest spectacles of these regions are such as to point to a probable independent development.

Aristophanes and Pliny mention lenses but refer only to their use as "burning glasses." Friar Roger Bacon, however, in his monumental "Opus Majus" published in 1268, discussed optics among other things, and submitted some drawings of biconvex lenses. He advised their use by the old and those with weak eyes. In Italy, credit for the introduction of spectacles is given to Salvino d'Armati and Alessandro di Spina, but their work possibly was derived from knowledge transferred thither by a member of Bacon's ecclesiastical order.

The Chinese held spectacles in superstitious reverence and to a considerable extent still do. The tortoise-shell frame comes from a sacred animal; the lenses are made of lucky stones, such as rock crystal, topaz and amethyst found among the sacred mountains, and they are ground with sand from the sacred rivers.

Must Doff Glasses Before Superiors

Glasses there are worn not only for visual defects, but for good luck and for the relief of all sorts of ocular ailments. They serve, too, as a badge of superior social status, and accordingly frames are often worn without lenses. Custom also decrees that an inferior must remove his glasses in the presence of a superior. Lenses are sold fixed in frames, and the customer picks out what he considers most suitable. Old men test their near vision by looking at the ridges on their finger tips.

Till the latter half of the nineteenth century the use of glasses was limited. It took time for social approval to be obtained, technical improvements developed, and the principles of refraction established. Their need, however, was not felt as long as books were rare and education restricted to the relatively few.

The introduction of glasses was at first opposed by both priest and physician. The clergy regarded these devices as impertinent efforts to defeat the divine purpose of inflicting disabilities upon the aged. The physicians, placing their faith in eye lotions, scoffed at their use, and regarded the prescribing of glasses as beneath their dignity. Spectacles were considered an affectation, and extensively ridiculed by Gogarth and Continental caricaturists.

But spectacles passed through the trials of probation to the triumphs of approbation. The wealthy went to great lengths to secure the finest glasses procurable—lenses from Venice, richly ornamented frames, and bejeweled cases.

National Museum

Above are pictured the wooden goggles used by the Eskimos as a protection against excessive light. They are attached to the head by leather thongs.

Davis, The Chinese, 1836

Early Chinese glasses were held in place by weights attached to cords running behind the ears.

Friar Roger Bacon, the "doctor mirabilis" of the Middle Ages, is a notable figure in the early history of spectacles.

At the left is reproduced a part of Ghirlandajo's fresco of St. Jerome in the church of Ogni Santi, Florence. Note the pince-nez hanging from a peg at the side of the desk.

Raphael's painting of Pope Leo X, in the Pitti Palace, Florence (1517), shows that the Pope had near-sighted eyes. In his left hand, he holds a concave lens to better his vision—the first ever pictured.

Spectacles were stamped on many coins of the later Middle Ages as a symbol of better sight.

During this period it became customary to picture with spectacles characters of dignity and importance. Unmindful of anachronisms, artists would thus decorate even apostles and early Christian fathers.

Ghirlandajo in 1480 painted St. Jerome working at a desk from the end of which dangled a pair of nose glasses. This detail gave rise to the legend that the learned saint was the inventor of spectacles; consequently St. Jerome became the patron saint of the spectacle maker's guild.

The spectacle makers' guild developed quite early in the history of glasses and took control of the infant optical industry. In Nurnberg is preserved the charter of the guild of that city. Located there are the world's most venerable optical firms, among them the Schmidts, a family which has thus officiated through successive generations from 1634 to the present. With the dissolution of guilds, pedlers (mostly Jewish) became the chief source of glasses for the general public. But toward the end of the seventeenth century opticians' shops became numerous.

Allowed Free Breathing

Eye-glasses alone were used in Europe until the eighteenth century. Often eye-glasses had a single or branched handle attached. From this came our modern lorgnon. A modification, called the "binocle," was favored by the myopic Napoleon, and accordingly became vogue for a time. The first spectacles were advertised as allowing free breathing; quite a comment on the early crude eyeglasses! The earliest models of spectacles had short temples ending in a plate in front of the ears that rested against the temples, hence the term. Spectacles later were provided with long jointed temples; such was the type used by George Washington.

In 1784, Benjamin Franklin invented bifocal lenses, which (as he states in a letter) proved a great personal convenience. However, this early bifocal did not admit of comfort in walking, and hence various other devices came into use. In 1866, cement bifocals were introduced, and in 1890 came the first "invisible" bifocal.

The material of frames and the shape of lenses always have been a matter of taste and fashion. Wood, ivory, horn and leather have been used as well as gold, silver, tortoise-shell and celluloid. In the preceding century large, round lenses were followed in popularity by small round lenses, which were in turn succeeded by octagonal, quadrilateral, square, and oval shapes. In 1840 Waldstein of Vienna devised rimless spectacles, and by 1850 these with "riding bow" temples were in general vogue.

As a protection from excessive light, lenses made of amber saturated in linseed oil were introduced in 1591. Colored glasses soon were substituted, and various shades successively came into use. Chlorophyl-green was proposed in 1880 on the theory that the irritating effects of glare are due to ultra-violet rays; euphos (a greenish-yellow glass) was introduced in 1907; and recently the Crookes lenses have become popular. This lens, produced by Sir William Crookes, is a protective glass so nearly colorless as not to affect color vision.

Glasses were imported in America prior to 1870, but since then the optical industry in this country has progressed by leaps and bounds. The perfected eyeglass is an American achievement. We have now the largest optical plants in the world, and glasses from America are exported to all quarters of the earth.

Adventures in Mosquito Control

J. A. LE PRINCE

A QUARTER of a century ago when the first work in the destruction of mosquitoes to reduce the prevalence of yellow fever and malaria was started in Cuba, the public took the control measures as a sort of joke and received those who were engaged in the work with a broad grin.

Not until 1914 was serious effort along similar lines undertaken in the United States. The small group of malaria investigators of our public health service was not enthusiastically received, and their efforts at that time to attract persons to a public talk on the local malaria problem resulted in audiences as small as a half dozen, even in highly infected malaria localities.

Possibly the human method of approach was not as effectively planned as the mosquitoes'; and certainly the fact was not then fully realized that in matters of this nature the changing of public opinion takes time. There is no known method of making a rapid and favorable change of public opinion toward any branch of applied sanitation. It appears that permanent approval of applied sanitation, like good timber, takes time to grow and develop.

Beginners frequently fail to keep the public sufficiently advised of the points they are driving at, and then do not know what the public thinks of it all.

Negress Suspected Health Worker

Toward the end of the mosquito season an investigator found a considerable number of mosquitoes near the edge of a proposed lake, and with the consent of the owner searched the inside of the hut of an old negress for more specimens. When he returned the next season he was very coldly received by the old mammy, and on inquiring whether mosquitoes were numerous since his last visit he was told that they were much more numerous and troublesome immediately after he left than ever before. He said: "Do you mean you think that I brought them?" The answer was: "Well Boss, I ain't too sure you didn't."

Today there are many persons who think that malaria control is an almost impossible task because the drainage of the large swampy areas that exist is such a tremendous undertaking. They forget that there is another side to the question. About half of the large swampy areas of our country have already been drained, or are now or soon will be in drainage districts. Drainage of large tracts of swamp land is going on more rapidly than ever before. A considerable portion of the large swamps often do not produce the malaria mosquito, and frequently the surrounding population is so sparse that relatively few people are affected. Finally, there are means of control other than drainage. At Panama we kept a lower malaria sick rate at camps near swamps than at camps in the hill country.

Then what is the use of trying to frighten ourselves with serious things that might be when there is so much to be done that is easier as well as more important?

More Concerned with Pests than Disease

The most important thing to be done is to get the inhabitants of our malarial regions to understand that they can obtain relative malaria freedom at a reasonable cost; that is what the county health officers are trying to show them. However, there is no question that at the present time most persons are still more interested in having an absence of pestiferous but harmless mosquitoes, than in the control of the malaria mosquito. In fact, it has been found difficult to persuade a community to concentrate its efforts on the elimination of the breeding places of the malaria mosquito and to ignore the sources of the more noisy, pestiferous species.

A field worker once stated that in any small community where he was employed to direct malaria control measures, if he got rid of the pestiferous mosquitoes so that their absence was favorably commented on and only made a small beginning toward malaria control, he was congratulated right and left, but in case he reversed the process, got rid of the malaria conveying mosquitoes completely and failed to stop the persons from breeding the harmless mosquitoes in their own houses and yards, his work would be considered a decidedly pronounced failure.

The first step, then, is to get the community to realize what its problem is before it starts its campaign; that means time and hard work.

Fortunately, we are outgrowing the old idea that it is a disgrace and "bad business" to advertise or make widely known the community's defects in sanitation. In reality, that is frequently the only means of bringing about a change. Statistics are at times unreliable. If

a state reports less malaria cases for a year for one county or for the entire state, than have occurred in one of its towns of less than 3,000 population, then what do those figures mean? Merely that the cases are not recorded.

If we knew where our malaria was concentrated and if our public in general was kept advised regarding it, there would be a different story to tell.

The Mayor Changed His Tune

A malaria field worker visited a small community to investigate malaria prevalence and was told by the local officials that malaria was of no importance there. They thought he was a prospective land purchaser. He concluded his investigations and before leaving went to say goodbye to the mayor. He mentioned incidentally that when he found the type of place in which local support was obtainable there were some state funds for malaria control that could be used. The mayor then asked the funds for his own city. "If you will visit here again in the autumn," the mayor told the field worker, "and will accompany a funeral procession toward the cemetery, you will be apt to meet another procession coming back. All of it is malaria; we have it most of the time."

At the conclusion of a talk on malaria control in another community a reporter appeared and said that he had missed the lecture but was very anxious to know what was used to kill mosquitoes. This is about the impression he got: women's clubs and dynamite; sulphuric acid and ministers; fish and lantern slides; chambers of commerce and lime; concrete and boy scouts; aeroplanes and Lions clubs; Paris green and castor oil; crank case waste and the public press; crude oil and kerosene; drainage and filling.

A health officer in another town was stumped and called for help. The town was heavily infested with mosquitoes, he had no funds to fight them, and no moral support for a campaign. A survey was made and it was noted that the park at the terminal of the trolley line was seldom used, the reason being given as high mosquito prevalence. The health officer was advised that his best opportunity was to convince the electric railway company that it would pay to drain the few mosquito breeding places near its park. The company saw the point, accomplished the drainage and the park became quite popular on hot summer nights. As the park became mosquito-free and the town was yet besieged by mosquitoes, first the public and then the press wanted to know why they could not have a mosquito-free town. Local officials acted rapidly.

A community in another state did not have sufficient funds both to carry on malaria control measures and to stop production of pestiferous mosquitoes in house yards. The question was how to do the latter without inspection costs. The mayor wanted to have both done. He decided to have the town look after the breeding places of the malaria mosquito and requested the local woman's club to devise a means of having each householder look after his own premises. He said that he wanted a practical plan that would work and would reach everybody.

The women rose to the emergency. They advised the mayor to select Saturday as mosquito day, and to sound the fire siren for three minutes at nine o'clock each Saturday morning as a reminder that the house yards should be inspected for mosquito-breeding water containers. The siren did not wake up the mosquitoes, but it did start wholesale mosquito elimination.

It is wonderful how persons who were previously accustomed to daily dozens or nightly ones will complain of the return of one or a few mosquitoes when a campaign against mosquitoes has once been started or is under way. A good way to overcome this is to have a daily complaint hour at the mosquito control headquarters. In one city where this was done 10 per cent. of those who complained were raising mosquitoes on their own premises, and in most of the other instances their nearest neighbors were undertaking similar tasks.

A small town that had conducted an antimalaria control campaign for two years elected a new mayor who decided this antimosquito activity was all nonsense and stopped it. His telephone rang freely and continuously all summer long, and he told his friends at the end of the season he would stop all other work if necessary, but he would carry on mosquito control if he had to do it all himself.

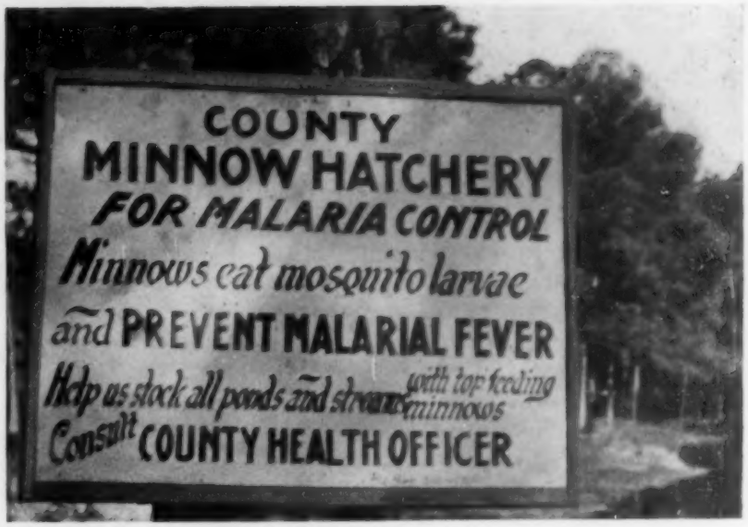
In the regions of highest malaria prevalence there is less effective screening of residences than along our seacoast where the salt marsh-bred, pestiferous mosquitoes are so numerous. Therefore it might be said that the salt marsh mosquito prevents malaria by forcing a larger percentage of persons to screen their homes.

Millions for Screens, Little for Control

In New Jersey the salt marshes extend farther than the eye can reach, but only a very small portion of them produce mosquito life. Instead of thinking their problem too big to handle, the residents there decided to analyze the situation; they soon found it could be solved and now are busy solving it. Field workers there say that the mosquito problem is relatively very small, but that there is a very big puzzling human problem and it is to get sufficient concentrated and organized public interest in mosquito elimination. That also is the major problem of malaria control in our southern states.

Manufacturers and merchants who make and sell screen wire have "sold" the public the idea

of using their product to the value of millions of dollars each year for partial mosquito relief. Dr. L. O. Howard of Washington, D. C., father of mosquito control, says that losses due to mosquitoes amount to a hundred million dollars each year. One of the states having very high malaria prevalence has not seen fit, until recently, to spend as much as $3,000 a year for control of malaria, even though in some counties 25 per cent. of the rural population is malarial. If state legislative bodies do not know what malaria is, where it is, and what it costs the state, and if they do not feel that the public intends to have malaria freedom, they naturally will be more interested in other matters that are more skilfully "sold" to them.


COUNTY
MINNOW HATCHERY
FOR MALARIA CONTROL
Minnows eat mosquito larvae
and PREVENT MALARIAL FEVER
Help us stock all ponds and streams with top feeding minnows
Consult COUNTY HEALTH OFFICER

This sign on the Tallahassee Road near Thomasville, Georgia, calls attention to one means of control of the malaria mosquito.

One malaria field man had the idea that business agencies and manufacturers should be more interested in this subject, as a high malaria rate year in any community always means a lowered buying capacity year. He prepared a paper on the subject and sent it to a journal read by manufacturers and wholesale merchants who sell their products in the malaria belt of our country. The editor of the journal returned the paper stating that it was intensely interesting but that he could not possibly use it.

Ten years ago it was most difficult to convince a community in which malaria was of sanitary importance and a heavy financial drain on the community that it should take action to control the sources of this disease. Today most of such communities realize the need of the change and ask where they can get the funds to institute control measures. This is a decidedly advantageous change of point of view. It is evident to all who have been interested in this subject for several years that the most important thing to determine is what is the best, cheapest and quickest way to make the people of the malaria infested regions realize that they have a condition that must be properly and systematically attacked and then to make them do it.

Swatting the Mosquito Helps

It does not require technical training to develop public interest in making a community more attractive and a better place to live in. The support of the individual farmer, banker and merchant, and the organizations they are a part of is what is most needed. Too many persons are afraid it cannot be done, and it certainly cannot as long as sufficient of them are of that frame of mind.

One field agent was informed that such an undertaking was not mere child's play, and he quietly and seriously replied that it was high time to get the children to help in this important battle. In rural districts where the suffering is heaviest, the children suffer most. Down in Panama, when negro boys were used to swat the bloodfilled malaria mosquitoes in barracks and native houses every morning, the malaria rate among the laboring population at once dropped. It was found to be a practical control means that helped tremendously to make life more pleasant and to keep labor effective in the swampy sections. It is a procedure that we seldom see used in our country.

Why should we wait for major drainage operations and fail to use the simple control measures of least cost? The manner in which screening of houses is accomplished seems to indicate that many of us think that because the mosquito is small it has no sense. The mosquito may not have sense, but practical experience has taught her that we often use still less than does she.

A very successful campaign of mosquito control was started along the Texas border to prevent the entrance or spread of yellow fever into that state. The laboring classes, which are Mexican, gave really good support to the work. When the sanitary engineer directing the campaign was asked how he was able to get such satisfactory results so cheaply, and such strong support from the public, he laughed and stated his answer was not for publication, but that there was a very small percentage of American population and the support given by the Mexican laboring population was all that could be desired. They seemed to want to help him and did so.

Rum Runners Are Branded

In connection with that campaign it was found advisable to oil some of the mosquito breeding places at the edges of the Rio Grande River near one of our ports of entry. A slight rise of the

river caused a thin film of oil to float for a considerable distance below the town. During the night there was some contraband trade and illegal crossing of the river. The clothing of all who had waded the shallow river was well labeled with oil. Some of the men were watched by the proper officials, and at their homes it was found that oil and water were not the only liquids they had brought across the river! Later some of the friends of these unfortunates wanted to know why this trap had been purposely set and thought the health officer's explanation very weak.

In another instance and another state the route of travel of an investigator in making a preliminary survey of a rural district was followed the next day by a party of revenue agents, and he had a hard time to explain to the residents that this happened to be a mere coincidence.

There are periods of success and of delay in malaria control, and even the boll weevil interferes with progress in antimalaria drainage, by cutting down profits, reducing drainage appropriations, and delaying the day when malaria will have gone from a large section of our present malaria belt. As time goes on, more persons learn the reason why we have chills and fever, and realize that its elimination will mean greater prosperity and better development of our rural territory.

It took seven years of persuasion to arouse one community, but when it started, its campaign included a radius of fifteen miles. In another instance, where each person thought the support of his fellow citizens could never be obtained, several years of effort finally started the ball rolling, and now most of the small communities throughout the county are entering a competition to see which can make the best annual improvement in malaria elimination.

In that county the essentials of the cause of malaria and its control are being interestingly presented at all rural schools, and when the parents of the school children were asked to report on malaria prevalence in their families more than two-thirds of the population was heard from. So, after all, the problem is not so impossible to solve.

Prosperity Increases with Malaria Control

Each village and town has a rural market area where the merchants' customers live, and if the earning power of the rural population is decreased they of necessity will earn and spend less. This loss of business of the local town merchants will extend far beyond the malaria belt into the manufacturing districts and affect those who do not know or care what malaria is. We need a little more permanent interest in public health matters. It is not only good for health but very good also for business and general prospertity.

The roadside barrow pit, of which there are many, is a frequent breeding place of the malaria mosquito.

It took a considerable time to get away from using bad roads that were costly to travel on, but it was done and was well worth the effort. It has by no means been easy to get malaria prevention operations well started. It is encouraging to find that more and more health workers are losing their fear of the size of the problem and are beginning to realize that it consists mostly of a series of smaller tasks that taken singly are not so alarming.

One of the men who for ten years has been on the firing line for a business corporation that is fighting malaria simply because such activity increases its profits summed up the situation as follows: If a man thinks he can't succeed in this work he is more than half right, and if he has a malaria problem that can't be solved he need look no farther than under his own hat for the reason.

If it can't be done in a day or in one season, that does not indicate it can't be done eventually.

Reporters Often Bewildered

Many small communities now enjoying relative malaria freedom were of the opinion a few years ago that such a condition was visionary. They did not stop to think that the families of the community were paying more for the screening of their homes than it would cost to eliminate the sources of the insects they were trying to keep out.

In trying to convince the public that malaria elimination and control of the mosquito pest are, in general, two distinct problems, and that it costs more to do two things well than one, some of the field directors think it unfair to newspaper reporters to make them remember all the new facts they hear during less than an hour's time.

One man is particularly emphatic on that point. He found that the local mosquito problem could be largely controlled by introducing top minnows and tried to fix the idea so well

that his audience would make use of it. His talk was reported in the local newspaper that evening and it was headed: "Eat more fish and we'll have less malaria."

In another instance the field man carefully prepared his press data so that the public would get the facts correctly. The reporter thought the idea was fine, and added the additional comment that the speaker had recently spent his vacation in the yellow fever ridden swamps of Mexico, although the prepared information stated definitely that the yellow fever mosquito was never found in swamps!

Of course, those engaged in mosquito control soon develop "mosquito sense" and become quick to notice any unusual conditions. An observer was in a park one Sunday in the late winter in New York City and noticing some gnats or mosquitoes swarming near made several dashes at them with his hat, and then looked into the hat to see what kind they were. A policeman immediately became intensely interested and followed the man at a safe distance for several blocks beyond the park.

There is another side to the question of malaria control that is not so amusing. Some rural schools find it advisable to keep an extra cot or two on which to place the suffering little children, as experience has taught them that cases of shaking chills are to be expected at the time schools open, and the sick child is a long way from home. In such sections of the country, one sees the half filled cotton baskets out in the field in the snow and the crop ungathered. That condition means a rather slim winter ration for the poor family.

We don't need to go a long way to find a crying need for missionary work, but there is considerable satisfaction in knowing that our women's clubs are becoming decidedly interested in a practical way in such matters.

Three of our important railroad systems have seen the light, and are investing money in malaria control because it pays big dividends to their corporations. Some day before long our associations of business interests may become equally interested and take hold of the problem, because of its direct relation to rural prosperity and reduced profits. When that day arrives our state health departments will be in a position to direct malaria control and elimination more rapidly.

Must Arouse Personal and Community Interest

No matter how difficult the problem, in our country, at least, there are possible methods of attack, and we shall have less malaria sickness as the simple control methods become better known and carried out. It is an everyday occurrence today to ignore the malaria mosquitoes gorged with blood and at rest in the patient's room. Generally one can slowly approach these resting insects and place a finger within a half inch of them before they will move. If they were destroyed, which is something that can be easily and rapidly done, there would be no malaria carried to the neighbors.

We can reduce malaria prevalence, even without funds, but we cannot stop its spread if we are not interested. It can be done. It will not be done until each one of us is ready to do his share. The growth of permanent, personal and community interest in this matter is the key to the elimination of malaria from our country.

Contributors to This Issue

DR. SOLOMON STROUSE, who writes on rheumatism, is a clinician, author of a work on diet in disease. DR. LOUIS I. DUBLIN is statistician of the Metropolitan Life Insurance Company.

This month's article on "Ridding the Household of Insect Pests" is the first of a series by DR. LOUIS GERSHENFELD of the department of bacteriology and hygiene, Philadelphia College of Pharmacy. DR. JOHN RUHRÄH is a Baltimore physician, having as his specialty the contagious diseases of children. DR. JAMES E. LEBENSOHN, a practicing physician, has a keen interest in medical history. VELMA WEST SYKES, who writes on "Baby's Bath" is a free lance writer for women's magazines and the mother of five children.

J. A. LEPRINCE's interesting adventures in mosquito control have been gained in his work as chairman of the committee on engineering of the National Malaria Committee. His headquarters are in Memphis, Tenn. ESTHER M. ALBRIGHT is public school nurse at Oskaloosa, Iowa. BERTHA MORRIS PARKER of the school of education hygiene staff, University of Chicago, is a frequent contributor to HYGEIA.

DR. DOUGLAS A. THOM is connected with Boston's six habit clinics for the preschool child. Many readers will remember his interesting treatment of "Mental Handicaps of Childhood" in the December and January issues. "The Truth about Antivivisectionists," which concludes in this issue, is the last blow struck by the late ERNEST HAROLD BAYNES, naturalist, in his long campaign against these opponents of medical progress.

The personal observations of BRONSON PRICE, college student, on conditions in a factory in which he worked are published under the title "What About the Health of the Factory Worker?" The article was presented by Price to one of his professors at Antioch College, Ohio, as a required class paper. MONTANYE PERRY is a free lance writer. EVA B. HOEHN teaches biology at the Community high school at Carlinville, Ill., and has done some interesting work with her first aid classes in physiology.

Inspecting the Teeth of High School Students

ESTHER M. ALBRIGHT

IN THE nursing program of the average small school system, high school students receive a very small part of the attention of the school nurse. One reason for this is that usually the field is larger than one nurse can thoroughly cover and the prevalent idea is that the high school student is old enough to look out for himself and to know for himself the care and attention required to insure the positive in health. So he is left to his own resources as far as health teaching or supervision is concerned.

Oskaloosa, Iowa, is much like the average small city of 10,000. Our school system—somewhat above the average, we like to think—consists of six grade schools and one high school with a total enrolment of approximately 2,100.

The last school year was nearing the close and nothing had been done through the office of the school nurse in the way of physical or dental inspection for the 600 students in the high school. When the subject was taken up with the superintendent and principal, it was decided that if the services of our local dentists could be secured a dental inspection would be given the students before school closed, thus giving them the summer vacation to have the needed corrections made.

Our next step was to consult the dentists. The plan was presented to the president of the dental association. The heartiest cooperation followed, each dentist agreeing to give two hours for the work and more, if needed.

Questionnaires were sent to each of the high school students stating that free inspection would be given by the dentists, and listing the names of the dentists cooperating. They were allowed to indicate a preference in dentists, if they had any. Lists for each dentist were then made, and those stating no preference were assigned arbitrarily to some dentist.

The president of the association secured the appointments with each of the dentists and the schedule was made according to the time given.

The lists and the schedule were left with the principal's secretary, who sent the students to the dentist's office according to the appointments. The high school building is within three blocks of most of the offices so that no great amount of time was lost going from and coming back to school. The schedule sent five students every quarter hour, thus averaging twenty to the hour or forty in the two hours' time each doctor had given us.

Regular dental examination blanks were used. Location of the cavities were marked and recommendations as to fillings, extractions, regulations and prophylaxis were noted. The nurse recorded the findings as dictated by the doctor and gave each student his slip showing the needed corrections and recommendations.

Individual advice and instruction were often thrown in for good measure, and thus the educational side of the inspection was not neglected. It was far from being a mechanical examination for cavities and cleanings.

In our follow-up work this year we are emphasizing three factors relating to the care of the teeth: (1) need of regular dental examinations and corrective work; (2) daily prophylaxis, and (3) diet.

In the diet we are emphasizing the use of milk and vegetables. In this we find a greater number of boys drinking milk, while in the eating of vegetables the girls outnumber the boys.

Candy eating between meals is discouraged with rather a small degree of success, especially among the girls.

Of the 90 per cent. of the high school group who needed corrections, the following report can be given.

Thirty-eight per cent. had all corrections made.

Twelve per cent. had part of the corrections made.

Eight per cent. are having work done at the present time.

Thirty-one per cent. have had nothing done.

Arrangements have been made to take care of the corrective work for those who cannot pay, at the Junior Red Cross dental clinic.

About 55 per cent. of the entire group are going to the dentist for regular examinations. As to prophylactic measures, 75 per cent. report that they brush their teeth daily. In this the girls average 94 per cent. while the boys average but 53 per cent.

It was interesting to discover that the average of daily brushings is much higher in the groups of those who have had all corrections made, and those who are having work done at present.

The Good Health Elves

A Health Play for Children

BERTHA MORRIS PARKER

INTRODUCTORY NOTE: *This play in its original form was written by a fifth grade hygiene class in the university elementary school of the University of Chicago. From time to time the children in this group reported instances in which health rules had been broken by other children in the school. The play was then written for presentation at assembly to call attention to those health rules which, according to the children's observations, were being frequently broken. Since certain points in the original play had to do specifically with conditions in the university elementary school, the play has been modified to make it more widely usable.*

CAST OF CHARACTERS

Ben, 12 years old
Marjorie, 10 years old
Tommy, 8 years old
Jane, 7 years old
King of the Good Health Elves
Dreammaker
Goblin
Teacher
Dentist
Elves: Helpful, Fleetfoot, Lucky, Trustful, Sprightly, Merry, Happy, Healthy and others

ACT I

SCENE: Children's playroom. Fireplace, left. Window, center back. Door, right. Table, right front. Chairs, toys, etc. *(Marjorie, close to the window, is reading Treasure Island. Ben is sprawled over the table studying. He writes, then reads, then yawns, then writes. His postures are always bad.)*

MARJORIE *(reading aloud, first in a low tone, then louder):* "Two had bit the dust, one had fled, four had made good their footing inside our defenses; while from the shelter of the woods seven or eight men—."

BEN: Marjorie, keep still. I can't think when you're making so much noise. Say, it's getting dark. Turn on the lights.

MARJORIE: Oh, no, I don't need them. *(Leaves window and lies on rug in front of fireplace.)* There's light enough here. I like to read by firelight. It is picturesque.

BEN: Mother won't like it. You can't do it after she comes home tomorrow. *(Goes to the fireplace and stands in bad position looking down at Marjorie's book.)* What is it? *(Enter Tommy, eating a large piece of cake.)*

MARJORIE and BEN: Where did you get that? Give me some.

TOMMY *(with his mouth full, shakes his head and goes behind table to defend his possessions. Swallows his cake):* In the cake box. I helped myself. But there isn't any more.

BEN: Greedy!

MARJORIE: I didn't want any of yours anyway. Your hands are dirty. I just know you haven't washed them since morning. What will mother say?

TOMMY: I hate water. And I don't like soap. Besides, what's the use of washing all the time? You only get dirty again. When I grow up I'll never wash.

MARJORIE: Grown-ups do such silly things, don't they? They want horrid bright lights when firelight is so much nicer to read by. I like to see it flicker on my book. In my house I'm going to have fireplaces in all the rooms and no horrid lights. *(Dances around.)*

BEN: Let's tell. I'm going to walk the way I want to, and I'll never say to my son, "Ben, stand straight." *(Hits Tommy on the back as he speaks.)*

JANE *(comes in while the others are talking, with her left hand cupped with salt or toothpowder in it, and with her toothbrush in her right hand): Oh! oh!* I won't either. *(Throws salt or toothpowder on floor and flourishes tooth brush.)* I won't brush 'em. I won't brush 'em. I won't ever brush 'em. It tickles and it hurts and I don't like it.

MARJORIE: Why wait till we're grown up? Let's have a society. We'll start it right now and we won't tell any one. Come on. Now all take hands. Stand like this, and then we'll speak and then we'll march. *(Children do as she directs.)*

BEN: I'm going to lead the march.

MARJORIE: All right. I'll speak first. No lights but firelight!

BEN: Stand as you please!

TOMMY: No washing, and cake whenever I want it.

JANE: I won't brush my teeth. *(March.)*

[*Curtain*]

ACT II

SCENE: Courtroom of the King of the Good Health Elves. *(King seated on throne gazing into a magic mirror. Looks puzzled as if he could not see clearly. Helpful and Fleetfoot sit at foot of throne, chins in hands.)*

KING *(becomes alert as he suddenly sees something in the magic mirror):* Helpful, Fleetfoot, something appears in the magic mirror. Soon we shall see who needs the help of the Good Health Elves tonight. *(The two elves jump up and stand on either side of the King. All three look into the mirror.)*

FLEETFOOT: What a pretty room!

HELPFUL: But see that little girl reading by firelight!

FLEETFOOT: Just look at that boy's position!

HELPFUL: Watch, some one else is coming in.

FLEETFOOT *(after watching for a moment):* Cake at this time!

HELPFUL: Here comes another girl! *(A moment elapses as they watch.)*

HELPFUL *(scandalized):* She's throwing away her tooth powder.

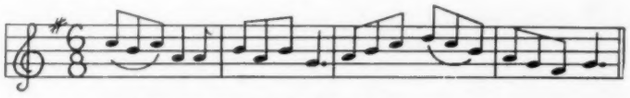
HELPFUL and FLEETFOOT: Oh, they've joined hands.

KING: Watch their lips closely so that we can tell what they are saying. *(They all watch intently. At last the King leans back on his throne with a sigh.)*

KING: Do you realize what they are doing? They are actually forming a Bad Health Club. Put the mirror away, Helpful. It has shown us clearly who needs our help tonight. *(Helpful takes mirror away.)*

KING: Fleetfoot, summon the other Good Health Elves. *(Fleetfoot blows a trumpet. A song is heard off-stage.)*

SONG:



Little Good Health Elves are we,
Good and bad habits we always see.

(Elves come dancing in. Bow low to the King and stand awaiting his orders.)

KING: Now, my little elves, there is work for you to do. The mirror has shown us four children who have decided that good health rules are foolish and that they will follow them no longer.

HELPFUL: One boy has decided that he won't ever try to stand in good positions again. You should have seen him.

FLEETFOOT: One little girl kept shouting, "I won't brush my teeth." *(He parades around as Jane did.)*

HELPFUL: The other boy wants cake for every meal, and never wants to wash his hands.

FLEETFOOT: And the older girl insists upon reading by firelight.

LUCKY: Why do you suppose they are so foolish?

OTHER ELVES: What can we do?

SPRIGHTLY: Let's stay with them for a while and whisper in their ears whenever they break a good health rule.

HELPFUL: Oh, that won't do any good. They know what the rules are but they think that the rules are silly. They think that these rules are just foolish grown-up people's rules.

LUCKY: I know what to do. Let's bring them here tonight and show them how foolish they are to break their good health rules.

OTHER ELVES: Yes, yes!

KING: A very good suggestion.

TRUSTFUL: Shall we bring them one at a time, or all together?

ELVES: One at a time.

KING: Of course you can bring them here only in their dreams. Be sure to wait until they are sound asleep. *(He claps his hands.)* Go now.

(Elves leave singing as they go):

Little Good Health Elves are we,
Good and bad habits we always see.

[*Curtain*]

ACT III

SCENE 1

SCENE: Same as Act II *(King on throne. Several elves are standing near. Door opens. Enter Lucky and Trustful, pulling Marjorie along between them.)*

LUCKY: We have brought Marjorie, your Majesty. *(Leave Marjorie beside the throne and move to the side of the room.)*

MARJORIE *(bewildered):* Where am I?

KING: I am the King of the Good Health Elves, and this is my courtroom. So you are the little girl who likes to read by firelight.

MARJORIE: Yes, I do.

KING *(claps his hands three times. Trustful runs forward):* Fetch me some gold. *(Trustful bows and runs out. Returns with a bag of gold. Marjorie looks puzzled.)*

KING *(to Marjorie):* How much will you take for your eyes?

MARJORIE: For my eyes?

KING: Yes, for your eyes. How much? *(Takes out a few gold coins.)* Is this enough?

MARJORIE: That enough for my eyes? No! No!

KING *(offers the whole bagful):* Here's the whole bagful. That's surely enough.

MARJORIE: No! No! No! Why, I couldn't read or play or have any fun at all if I couldn't see.

KING *(Claps his hands and Trustful runs forward again.)* More gold. *(Trustful goes out and returns with several bags full of gold.)*

KING *(offers bags of gold to Marjorie):* This is surely enough.

MARJORIE *(almost crying):* Can't I make you understand? I wouldn't sell my eyes for anything. I think that it is terrible of you to suggest it.

KING: But how was I to know? I saw by my magic mirror that you were willing to throw them away for nothing, so I thought of course you would be willing to sell them instead.

MARJORIE: Willing to throw my eyes away? Why no, I wasn't.

KING: Why then were you reading by firelight? Don't you know that it is just throwing your eyes away to try to read when the light is not good? If you were going to take a picture on a cloudy day you would open wide the shutter of your camera. If you were going to take a picture on a very bright day you would want a very small opening so that there would not be enough light to spoil the film. Your eye is somewhat like a camera. If the light is very bright, the pupil, the opening through which the light gets into your eye, is small. If the light is very dim, the pupil is large. Firelight flickers. It is first bright, then dim. The little muscles in your eyes are busy making the pupils in your eyes first large, then small. And at best they cannot work fast enough to keep up with the flickering of the firelight. Soon your eyes are tired. I suppose you sometimes read with the sunlight shining full in your eyes, too. Straining your eyes or tiring them is just like throwing them away bit by bit.

MARJORIE: I never thought about it in that way before.

KING: That's the way you should think of it. Now you may go, but whenever I see in my magic mirror that you are throwing away your eyes for nothing, I will send for you again, and the next time I may make you sell me your eyes whether you want to or not.

MARJORIE: You'll never have to send for me again. *(King claps hands. Lucky and Trustful come forward and hurry Marjorie away. Just as Marjorie leaves, Fleetfoot and Helpful enter with Tommy. They leave him before the throne.)*

KING *(to Tommy):* So you do not think good health habits are worth while?

TOMMY: I'm tired of hearing about good health habits.

FLEETFOOT *(comes forward with a big cardboard drawing of bacteria):* Here's a picture for you. How would you like to eat these things?

TOMMY *(sulkily):* Of course I shouldn't like to eat them. They look horrid, whatever they are.

FLEETFOOT: Don't you know what the picture shows?

TOMMY: No.

FLEETFOOT: It is a picture of some of the bacteria I found in the dirt I washed off your hands before I brought you in to see the King. Some of these bacteria are disease germs.

TOMMY: I never saw any things like that on my hands.

KING: That is because each separate one is so tiny. But you may be sure that if your hands are dirty some bacteria are on them. And, of course, when you eat anything you have handled with dirty hands you are eating these, too *(points to diagram).* Some of these are dangerous.

FLEETFOOT: You'd better remember this picture every time you start to eat when your hands are dirty. *(Takes picture away.)*

KING: How long did it take you to eat your lunch today?

TOMMY: About five minutes.

KING: After seeing in my magic mirror how fast you ate a big piece of cake tonight, I am not surprised.

HELPFUL *(brings forward a big book and pushes it in front of Tommy):* Here's another picture for you. Do you know what it is?

TOMMY: It's the picture of a person's stomach.

HELPFUL: Do you see any teeth in it?

TOMMY *(sulkily):* Teeth? Of course not. No one has teeth in his stomach.

HELPFUL: Well, you certainly act as if you thought you had if you eat your lunch in five minutes. You eat so fast that you must expect your stomach to chew your food for you. *(Helpful takes the book away.)*

KING: The chief reason the elves brought you here is that you do not seem to like the right kinds of food. Aren't you the boy who wants cake for every meal?

TOMMY: Yes-s-s.

KING: What do you like besides cake?

TOMMY: I like ice-cream and candy and meat best.

KING: You like milk, don't you?

TOMMY: Not very well. I drink a little when mother makes me.

KING: And oatmeal?

TOMMY: I don't like it a bit.

KING: What about vegetables?

TOMMY: I don't like them. Some of them would taste all right if there weren't anything better to eat, I suppose.

KING *(to Fleetfoot and Helpful):* Turn the calendar ahead and let Tommy spend a few minutes three months from now. *(Fleetfoot and Helpful take Tommy over to a chair near a table. Helpful moves an arrow three months ahead on the calendar on the wall. Tommy rests his head on the table and begins to cry. The teacher comes in and goes up to him.)*

TEACHER: What is the trouble, Tommy?

TOMMY: I don't want to stay in the third grade while all the other children go on to the fourth grade.

TEACHER: But of course you can't expect to get along so fast as they do when you aren't well.

TOMMY: But I'm well.

TEACHER: You aren't very strong, Tommy. You are pale. You are thin. You can't pay attention so well as the other children. Sometimes you are almost asleep when the other children are working. Do you ever have headache?

TOMMY: Yes, sometimes.

TEACHER: I thought so.

TOMMY: And sometimes I have a little pain in my stomach, too.

TEACHER: So you see that you can't expect to get along so well as the other children. You'll just have to be content to see them go on faster than you do.

KING: Turn the calendar back again. *(Helpful turns the calendar back again. The teacher disappears.)*

TOMMY *(comes over to the throne):* Is that really going to happen to me?

KING: Unless you do something to prevent it.

TOMMY: Why, I'd do almost anything. How can I?

KING: What was that you were shouting in the parade last night?

TOMMY *(sheepishly):* "Cake whenever I want it."

KING: If you change that to "Hurrah for milk and cereals and vegetables" and show that you mean it, I can promise you that this will not happen to you. But that is what will happen if you start in to eat cake for every meal and refuse to eat milk and cereals and vegetables. Decide for yourself. Away! *(Sprightly and Happy come in with Ben. Ben stands with head hanging, chest in, shoulders rounded.)*

KING: What's your name?

BEN: Ben.

KING: So you're the boy who thinks it's silly to have to stand in good position?

BEN: It's such a nuisance.

KING: You didn't ever try to get any work to do, did you, Ben?

BEN: Yes, once I did.

KING: And did you get the position you wanted?

BEN: No-o-o.

KING: Why not?

BEN: I don't know. They wanted some one to run errands in the mornings last summer and another boy and I both wanted to do it and they hired him.

KING: Was he older or larger?

BEN: He was my age and about my size. I don't know why they took him.

ELVES: He doesn't know!

KING *(claps hands and Sprightly and Happy come forward. Sprightly is straight and alert looking. Happy stands much as Ben is standing.):* If you wanted an elf to carry a message for you, which one of these elves would you choose?

BEN *(pointing to Sprightly):* This one, of course.

KING: There's the answer to why you weren't hired.

BEN: Do you suppose that was the reason?

KING: I'm sure of it. Do you play basketball?

BEN: No. I wanted to be on the team, but they said I wasn't good enough. I get tired too quickly.

HAPPY *(straightens up, so that he is in a good position):* Is it any wonder? Who'd pick any one who looked like that for a team?

SPRIGHTLY: Of course he gets tired. He hasn't any room in his lungs for air.

HAPPY: I'll wager he even rides to school instead of walking whenever he gets a chance.

OTHER ELVES: You do, don't you?

BEN: Yes-s-s.

KING: Of course it really doesn't matter. You didn't really care whether you were on the team or whether you were hired as an errand boy.

BEN: Oh, yes I did.

KING: I can't believe it. A boy who really cared wouldn't go around shouting, "I'll stand as I please."

BEN: But I didn't know until now that it was the way I stand that made the difference.

KING: You do know now. I wonder what difference it will make. If you really want to stand so that you look alert and energetic, remember that plenty of good food, and plenty of sleep will help you, too. You may go. *(King waves Ben away as Merry and Helpful come running in.)*

MERRY: Your Majesty, we can't bring Jane. When we tried to slip into her room on a moonbeam we couldn't get in. The window was down!

ELVES: The window closed!

HELPFUL: Can't we take some dreams to her instead?

KING *(claps hands):* What, ho! Dreammaker. *(Dreammaker enters.)*

HELPFUL: We need a bad dream for a little girl who won't brush her teeth.

MERRY: We'll have to have another about having her window closed.

KING: Make these dreams as my helpers have asked.

MERRY: Put plenty of hurt into the dream about her teeth. *(Curtain falls as the dreammaker leaves escorted by Merry and Helpful.)*

[*Curtain*]

ACT III

SCENE 2

SCENE: Bedroom with closed window. *(Jane in bed asleep. The elves tiptoe in and circle around the bed.)*

HEALTHY *(as the elves enter):* Well, at last we found a way in.

MERRY *(to Helpful):* Now sprinkle on the dream powder. *(Helpful sprinkles the dream powder on Jane. The elves then move to the side of the room and watch.)*

JANE *(suddenly sitting up in bed and holding her hand to her face, half crying):* Oh, another toothache. *(The dentist comes in.)*

DENTIST: So you have a toothache. Let me help you. I am a dentist. Open your mouth. *(Jane leans back a little and opens her mouth.)*

DENTIST: I see; I see. No wonder you have a toothache. This tooth which is aching is so badly decayed that it will have to be pulled. What's this? *(In surprise.)* Another decayed tooth? And another? And another? Do you brush your teeth carefully at least twice a day?

JANE: No-o-o, not every day.

DENTIST: I thought not. And you eat a good deal of candy and don't drink much milk. Am I right?

JANE: Yes-s-s.

DENTIST: Candy, of course, is very bad for teeth, and milk is very good for them. Why don't you come to me often to let me look at your teeth?

JANE: I'm afraid you will hurt me.

DENTIST: If you would come to me often, I would have very little work to do and it would not hurt. As it is—*(Dentist inserts forceps and pulls a tooth. Jane screams and falls back on the bed. Elves nod satisfaction and the dentist steals away.)*

JANE *(sitting up in bed and rubbing her eyes):* What an awful dream! *(She lies down again and goes to sleep. Helpful tiptoes over and sprinkles dream powder on her once more. A goblin enters, goes over to the bed, and puts his hands on her chest.)*

JANE: I can't breathe. *(She opens her eyes and sees the goblin.)* Who are you?

GOBLIN: I am the bad air which you shut up in your room last night.

JANE: Why are you here?

GOBLIN: Your window is shut again tonight and I can't get out.

JANE: I can't breathe when you are pressing on my chest.

GOBLIN: Of course not.

JANE: When are you going away?

GOBLIN: As soon as you make me. *(Goblin takes out a big bottle and starts to remove the cork.)*

JANE: What have you there?

GOBLIN: These are pneumonia germs. They like to stay wherever I am.

JANE: Go away. *(Goblin does not move.)*

JANE: What can I do to make you go away?

GOBLIN: Open the window. *(Jane gets up and opens the window.)* I'll be back again next time you sleep with your window shut. *(Goblin leaves.)*

JANE: I'll never give you another chance.

[*Curtain*]

ACT IV

SCENE: Same setting as Act I.

TIME: Morning of the next day. *(When the curtain rises, Ben is going through setting-up exercises.)*

BEN *(as he exercises):* One, two, three, four. One, two, three, four. Now I'll do some deep breathing. *(Takes some good breathing exercises.)* Maybe I can make that team after all. What a queer dream! *(Enter Marjorie, carrying two lamps and cords. She puts one*

on the study table and makes the connections. Then she places a small table near the fireplace and puts the other lamp on it, arranges an easy chair in the right position to get the light from the lamp, picks up the book which she left on the floor, and places it on the table.)

MARJORIE: There, I guess that will be just right. Now I'll have a good light to read by instead of that flickering firelight.

BEN *(goes to the table to gather up his books):* Come on, let's hurry. I'm going to walk to school this morning. Walking is good exercise. Where's Tommy?

TOMMY *(entering):* Here I am. I'm hungry. Let's go to breakfast.

MARJORIE: Jane isn't here yet. She's been brushing her teeth for ten minutes. *(Looking in a box on the table.)* Oh, Tommy, here's some cake. Did you put it here for breakfast?

TOMMY: Give it to me. Disgusting stuff. *(Throws it in the fire.)* I want some oatmeal and milk. I'm hungry and they're good for me. Jane, Jane, hurry up.

JANE *(entering):* Br-r-r, it's cold in my room. But I like it, I do.

BEN: Say, what about that club we started last night? Let's call it the Good Health Club and find out all the things that will make us strong so that we can play on the teams. Let's do some exercises and march down to breakfast. Heads up. Breathe deep—one, two, three, four. About, face; forward, march. Left, left. *(All march out. Enter Sprightly, Lucky, Healthy, Trustful, Merry, Happy, three from each side, stepping high and softly. They form a line at the front of the stage. They point to the audience as they speak.)*

SPRIGHTLY: If you forget to brush your teeth,
LUCKY: If you stand and sit in bad positions,
HEALTHY: If you do not get enough fresh air,
TRUSTFUL: If you do not choose your food wisely,
MERRY: If you cannot remember to eat slowly,
HAPPY: If you have any bad health habits,
ALL: We may bring you bad dreams tonight.

[*Curtain*]

Fifteen Questions for Mothers

DOUGLAS A. THOM

IF A child does not eat the proper foods, it may be the mother's fault. Mothers should ask themselves the following questions to see if they are making any of the mistakes indicated:

1. *Do you fret about what your child eats and whether he is getting enough?* If so, very likely at every meal-time you make him the star actor in a little drama, and every child likes to be the center of attention.

2. *Do you talk about his eating habits to other persons in his presence?* If so, any child would feel important and would want to keep up being different.

3. *Do you insist on feeding him after he is old enough to feed himself just because it is easier than to teach him?* Better let him spill a little until he learns, than to become dependent and fretful.

4. *Is some one else in the family very particular about his foods.* Of course, a child likes to imitate older persons.

5. *Do you choose plain, nourishing, easily digested foods and cook them well?*

6. *Do you let your child taste everything that grown persons have?* A child used to having tea, coffee and highly seasoned foods and too many sweets has lost a healthy appetite.

7. *Do you serve food as attractively as you can and not in too large quantities?*

8. *Do you feed your child regularly?* A child cannot go too long without food, but eating between meals means that his little stomach is overworked.

9. *Do you find that he sleeps poorly, is irritable, has violent tempers or strange fears?* If so, not only his eating but his other habits are probably disarranged.

10. *Do you know that a child who is angry, fearful or worried cannot digest food properly?* Overcome the emotion first and then let him eat.

10. *Do you create an unpleasant scene in an effort to make him eat?*

11. *Do you create jealousy by denying to one child what another has?* The child who is refused what the other children have should know why.

12. *Do you try to show your authority by making a child eat anything just because you say so?* It is better to show that you are reasonable and expect him to be; that you consult his preferences when you can, but if a food is needed for health, he must try to learn to like it.

13. *Do you suggest to the child your own doubt as to whether he is going to eat?* A child is quick to refuse if he senses that you expect him to, and as quick to eat what is offered without question.

15. *Are you so afraid of your child's missing a meal that when he refuses what you give him you provide something else?* Missing a meal will not hurt him. Leave the food twenty or thirty minutes and then take it away and give him nothing else until the next meal.

The Big Muscle Boys

More Exponents of Mail Order Physical Culture

PERHAPS our readers, after hearing about the way in which Professors Albizu, Atlas, Breitbart, Liederman, et al. turn weaklings into Herculeses, or whatever the plural of a Hercules may be, were of the opinion that all the real secrets of acquiring muscle in ten or twenty mail order lessons were the property of the men whose names begin from A to M.

But no! It isn't true. We have continued our investigations and we find that the gentlemen from M to Z also have secrets. These secrets they are willing to share with you. They have offered to share them with us—for a consideration—and we are going to save you one step in the process by telling you what you get when you clip the little coupon that appears with the ad in Mr.—or should it be Professor?—Macfadden's magazine.

Charles MacMahon

Last month you were told that Charles MacMahon outstrips them all—at least so far as shown by the pictures in his little booklet. As you might easily have anticipated he has a little booklet. All the mail order Herculeses have little booklets. If you sent for Charles MacMahon's little booklet, it was probably in response to the "ad" in which he cautions you not to be a "flat tire."

All of the emphasis in the "ad" is on flatness. If you have a flat chest, he offers to puff you up; if you have flat feet, if you have a flat pocketbook—but no, it seems he doesn't fix flat pocketbooks. He merely says that ill health means a flat pocketbook and he is going to save you all the expense that ill health entails by putting you in A-1 physical condition. Indeed, flatness appears to be an obsession with Charles MacMahon: "I Flatly Refuse to Let You Pay One Cent," he says in big type, but he continues in little type "either on my booklet, my pamphlet, or toward defraying my expenses of wrapping, postage and the labor of getting them to you." But when you do get them, then comes your opportunity to spend money.

First, there comes the page of bare-torsoed gentlemen who—we are asked to believe—have taken the MacMahon course; also the testimonials of these Samsons. Next there is the little booklet entitled "The Royal Road to Health and Strength" by Charles MacMahon. Here and there among the many photos of Mr. MacMahon which illuminate every other page, one finds remarkable statements. For instance on page 6, the text reads:

> A man with a squarely built, well muscled waist rarely suffers from disease of the digestive and dissimilative organs.

We have been trying to find out what a dissimilative organ is; the word intrigues us.

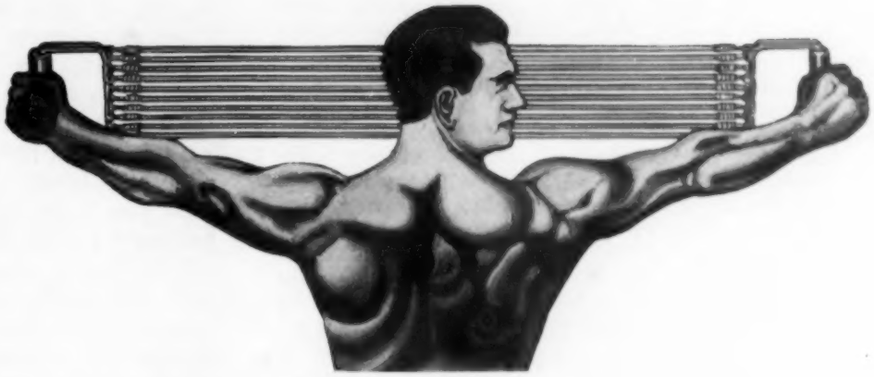
Charles MacMahon learned his technic from the Hindu wrestlers, so he says, and he specializes on the legs and the waist. This is Charles MacMahon's "system." All the bare-torso gentlemen have "systems" in every sense of that unusual word. He also has an apparatus, although not a rubber or a spring apparatus. You may have noted that these exponents of the science of physical culture have been unable to agree on the desirability of apparatus or on any one apparatus. Indeed no two of them have agreed. Every bare-torso king has an apparatus all his own.

Mr. MacMahon offers you nine separate lessons at intervals of ten days. With each lesson you get a set of separate pictures. The price is $30 and it includes the necessary apparatus. If you pay $24 cash you get the new $30 tumbling and hand balancing course free. Suppose you don't accept right away. Let us tip you off. It will be to your advantage. Wait for the second, or third, or fourth, or fifth offer. If you wait long enough Mr. MacMahon throws in more courses, personal service and a magazine subscription.

Finally may we point out that the MacMahon question blank asks only for measurements and doesn't even make a pretense of finding out if the applicant ought to be indulging in strenuous exercises. Perhaps it is quite suitable for Mr. MacMahon to lift up the columns of buildings and to toss around 200 pound weights. But how about the man with high blood pressure, arteriosclerosis, or disease of the heart? Does Mr. MacMahon care? Or does he take the attitude that the fellow who wants to spend $30 and take a chance at rupturing a blood vessel or overstraining his heart, should have that privilege?

Michael McFadden

This gentleman modestly admits that he is the "Champion of Champions." His name is McFadden. For $8 he sells you the McFadden



Are you a puny weakling? Do you want to achieve the lumpy appearance here shown? The secret lies in using the Michael McFadden Patented High Tension 10 Cable Progressive Exerciser. Mr. McFadden says so!

Patented 10 Cable Progressive Exerciser. He offers also the Patented Progressive Handles, the Patented Progressive Stirrup, the Patented Progressive Head Gear, the twelve weeks' Home Instruction Course, "most wonderful ever written—the kind you cannot get elsewhere"—more secrets, you see!—and finally the Michael McFadden Encyclopedia.

All of this, which he alleges is worth $30, he offers for a trival $8, and he guarantees to increase your biceps one full inch in from thirty to ninety days and all other parts of your body in proportion. His guarantee, he says, is backed by a $10,000 challenge. Further than this deponent sayeth not!

His saffron colored circular shows some fourteen bare-torso gentlemen in various stages of bareness, presumably all brought into muscular beatitude by exercising regularly with the McFadden Patent High Tension 10 Cable Progressive Exerciser, with a resistance of 10 to 200 pounds. One thing about Mr. Michael McFadden—if you don't answer him right away he apparently is willing to let you suffer. You will not have your mail box cluttered up by the weekly or semiweekly follow-up letters. Mr. McFadden lays little stress on his course; his stock in trade seems to be chiefly the name that one conjures with in the mail order physical culture world and the Patented High Tension 10 Cable Progressive Exerciser and other "Progressive" things.

Introducing Lionel

Of all the mail order strong men Lionel Strongfort most merits discussion in a magazine of health, for he appeals to the fears of the sick and the neurasthenic to a greater extent than do any of the others. The literature that he circulates and his follow-up letters emphasize sexual weakness to the point of nausea. It would be unsuitable to reprint them even for the sake of proof in a periodical such as this. Letter after letter in his series emphasizes sex and virility and lost manhood. Evidently the promoters of "Strongfortism" have found that there are a sufficient number of psychasthenics with fears as to their sexual powers to make the appeal a drawing one.

The Strongfort course is built around his resistance increasing dumb-bell, "a triumph in athletic apparatus." "The Strongfort is without doubt the handsomest dumb-bell on the market" urge the circulars.

The Strongfort question blank is about like the others, except for this question, masterly in its bare-faced, impudent departure from the facts:

> Any white spots under your finger nails? (Indicating Uric Acid in the system).

There is an attempt to play upon the old uric acid bugaboo by frightening every one who has white spots on his finger nails. And who doesn't have them at one time or another? The fact that the white spots have no more to do with uric acid than with carbolic acid doesn't worry Strongfort.

Besides the Strongfort blank again and again emphasizes "secret habits," "virility," "night losses" and other sexual matters.

The Strongfort booklet—he has a booklet—is a remarkable concoction of mendacity, attacking well-nigh everything except Strongfortism so far as relates to health and the control of disease. It is illustrated by the usual bare-torso photographs, the oak leaf serving the demands of modesty furnished in the other bare-torso booklets by the surcingle, leopard skin or air brush of the photoengraver. The keynote of Strongfortism aside from the "Resistance Increasing Dumb-bells" is "internal and external muscular harmony." Once every one has achieved this desideratum by the course and the dumb-bells, the millennium will be reached. Following are a few modest Strongfortisms:

> Strongfortism is a panacea for all habits that arise from physical weakness, as all bad habits do, because Strongfortism builds up Strength that resists such habits. There would be no need for Prohibition laws on liquor or any other vices if everybody practiced Strongfortism.
>
> Strongfortism is the key which unlocks Nature's storehouse of vital energy. It reaches and develops the inner muscles which control the vital organs, generating the Life Forces.
>
> The weakling is developed and inspired with the mastery of mental power and physical perfection—the glorious crown of MANHOOD. The dyspeptic and neurotic, whose system is wracked

by disease, finds rebirth in the quickening pulse of a revitalized body, vibrant with health and energy.

A person who is rendered immune through a Course in Strongfortism is safe against Colds, Epidemics and all kinds of diseases, whether catching or otherwise, simply because his internal system is in harmony with the external —every set of muscles works one with the other —every organ is regular and this rhythmical kenetical action gives a volume of vital force which repels every kind of disease. It is the man in ill health or whose vitality is low that is susceptible to Catarrh and all kinds of diseases.

Of all the preposterous medical hokum we have ever read, nothing has crossed our vision to equal that appearing in the literature of Mr. Strongfort. If ever superlatives were justified they are justified in discussing his work in relation to that of the other bare-torsoed gentlemen in this series. According to our investigation:

He puts the most stress on sex.
He attacks the most other instructors.
He sends the most follow-up letters.
He makes the most medical claims.
He makes the most extravagant promises.

In only one way is he outstripped and that, as has been mentioned, by Mr. Charles MacMahon.

Prof. H. W. Titus

Here we are at Professor Titus, last of the series, and ready to confess that reading the claims of these physical culture mail order promoters has made us tired. We have apparently overexercised. We get no kick out of the literature of Professor Titus.

The fact that he announces himself as "The Most Successful Director of Physical and Health Culture in America" does not seem to thrill us. When he asks, "Do you take pride in your personal appearance?" our flagging energy does not revive. His offer of a complete course of Lessons with the Progressive and Automatic Exerciser for $15 down, $5 in thirty days and remaining $5 in sixty days does not strike our fancy. Even the yellow ten dollar reduction check that comes with the fourth or fifth follow-up letter makes no appeal. Actually the literature and the claims of all of these bare-torso gentlemen leave us in a muddle.

Prof. Henry W. Titus admits that he is the most successful director of physical and health culture in America.

One of them curses roundly all other courses that use apparatus; the spring apparatus proponents vilify the rubber band stretchers; the rubber band stretchers attack the spring benders; the dumb-bell workers roast the spring benders and the rubber stretchers; the roller dumb-bell advertiser says the standing dumb-bells are worthless and the standing dumb-bell promoter announces vigorously that they won't roll off the table. Mr. Strongfort tells us that anybody that bites chains in two is a fake; Mr. Breitbart shows how he bites the chains; Mr. MacMahon develops the waist muscles—that's the secret—but Mr. Strongfort develops the internal muscles; then, too, you will remember Mr. MacMahon concerns himself with the "dissimilative" organs.

If we are to indulge in these strenuous exercises and indoor sports why not find out first through some sort of physical examination whether or not we are fitted to undertake the stunts of these physical culture professors? Mr. Thomas Rice of the *Brooklyn Eagle* has recently looked into the control of these mail order physical culture courses and the muscle exploiting gymnasiums. He says:

Under present conditions, anybody may set himself up as a physical culturist. Not only that, he may advise his clients, or whatever he may choose to call them, to pursue a course that must inevitably shorten their lives, and no check at all may be placed upon him.

Any boxer, wrestler, football player, runner, shotputter, etc., who has passed out of competition is privileged to open a gymnasium and tell the world that he is capable of giving fit instruction to all comers, regardless of their present apparent health or their past history. . . .

What may be excellent for the athletes in their prime may be dangerous for the immature boys, and may be absolutely fatal for the middle-aged and elderly, but hundreds, if not thousands, of the "professors" do not know that, and many would not care a hoot if they did, so long as young, middle-aged and elderly paid their fees promptly.

Mr. Rice is evidently an astute gentleman; he has noted that the matter of paying the "fees promptly" has a great deal to do with the work of the big muscle boys.

Ah, well! Spring has come. The great outdoors beckons; the golf links, the swimming pool, the base ball diamond, the tennis court, and the cinder path call us. The sand dunes and the woods make their bid for our patronage. What price then these rusty springs, these roller dumb-bells, these rubber bands?

Baby's Bath

VELMA WEST SYKES

NOTHING is so pitiful or so uncalled for as an unclean baby. Cleanliness is absolutely essential to the infant's health and comfort and to the sensibilities of every one around. Consequently, a complete bath every day is a necessity for at least the first year of the baby's life, and should be a matter of regular routine.

Before the maternity patients of many hospitals leave for home with their precious bundles, they are taken into the nursery and instructed in the mysterious rites of a baby's bath. This is an important part of the hospital's service to patients, and certainly young mothers are grateful for the opportunity, for many of them have no help when they arrive home.

The baby's bath at home does not always run so smoothly as it does at the hospital, the chief reason being that the mother does not go at it in the same systematic manner and does not adapt the hospital rules to the conveniences of the home.

To the mother with her first baby, the infant seems so small, so wiggly, and so slippery that the time when he takes his bath frequently becomes the one unpleasant time of day for mother and baby. This is not necessary, for even a young baby will learn to enjoy his bath if he is made comfortable while it is given him.

In the first place, the room in which baby is bathed should always be warm. As the kitchen may have a fire at any time during the year, in some homes it is often the most convenient place to bathe the baby. A kitchen table will serve nicely as a place to set the baby's tub and bath articles. Another convenient place is the draining board of a sink, the bath blanket and basket being placed on the board and the tub down in the sink. Some mothers find it hard to stand up while bathing the baby and like the low tables that are on the market for this purpose; these can be moved to any room in the house. I always found that I was slower when sitting down and that the baby was more likely to get cross, but if one is weak, it is much better to let the baby fret a little than to try one's strength.

My babies seldom cried when I bathed them and I think this was due partly to the fact that I never bathed them when they were hungry. About an hour after the first morning feeding is a good time to give baby his bath, although tasks such as this must be planned to fit in with the home routine. Most babies of more than a few weeks, if bathed just before feeding time, are too hungry to enjoy the operation and are likely to grow red in the face like a turkey gobbler and broadcast to the neighbors the fact that they are being abused. A bath always makes a baby sleepy and, unless he has been spoiled, he will drop to sleep with a bottle of water afterward.

Before taking up the baby for his bath, everything should be in readiness. The tub, an oval-shaped pan of white enamel, should be placed at hand with water in it that feels conveniently warm to the elbow. A basket containing the necessary clothes should be within reach, and another container should have sterile olive oil, filtered boric acid (2 to 4 per cent.), sterile applicators made by rolling absorbent cotton on the ends of toothpicks, a soft wash cloth, soft towels, and a soft dusting powder.

While it is not absolutely essential that the baby's temperature be taken every day, especially if the mother is one of the nervous kind who tele-

phones the doctor when the baby has half a degree, it is a good practice to follow for the first few months in order to prevent unusual conditions arising. A baby may have a slight fever and not be ill at all, but if he shows several degrees, the cause may be determined and remedied before the baby has a chance to become really sick. For taking his temperature, the bulb thermometer inserted gently in the rectum, never pushing hard for fear of rupturing the tissue, is used. The normal temperature of a baby is the same as that of an adult—98.6.

Bath time is the best time to weigh the baby, and he should be weighed each week on the same day at the same hour. He should be stripped, laid in a clean diaper and placed on the scales.

A soft blanket should be kept for no other use than the baby's bath. He can be placed on this and his head and face washed before his clothes are removed, if the room is at all chilly. If a crust has formed on the baby's head, olive oil or white vaseline should be put on each night for several nights and washed off each morning. It is never advisable to scrape a baby's head with a fine comb; a soft brush is advisable for the first few months. A large amount of scale in the hair is frequently an indication that the baby is physically below par and needs medical attention.

Some persons advise against using soap for the first few weeks, except on those parts that cannot be cleaned without, but others insist that a mild, pure soap is beneficial, if it is carefully rinsed off. After the hair has been washed and patted dry, the face may be washed and then the nostrils cleaned. This is done with applicators dipped in olive oil, using one for each nostril. The ears are cleaned with applicators dipped in boric acid. Care is taken to go just inside the canal of the ear and in the creases, as well as the backs of the ears where the soft folds are likely to collect and hold dirt. For the eyes, a medicine dropper with boric acid is used to wash them out, a soft piece of cotton serving as a wiper. Of course a different piece of cotton should be used for each eye, and one should wipe from the nose outward. In this way, if one eye has an infection, it will not be so likely to reach the other eye.

Until the navel heals, no tub bath is given, the sponge baths sufficing. Afterward, the baby is put into the tub, for if he is given only sponge baths until he is old enough to begin noticing things, he will fear the water and cry when placed into it.

After the head and face are washed, the baby is undressed quickly and with the mother's left hand supporting his back, he is gently lowered into the tub. A soft bath towel should be put in the bottom of his tub to prevent him from slipping. With the right hand, one can gently wash the little body, talking to the baby softly to reassure him, and paying particular attention to his fingers and toes. Until he is several months old the baby is not left in the bath long, but is taken out and patted, not rubbed, dry, the soft towel being used as a blotter. The joints should always be supported by placing the hand back of the creases near them, as an infant's bones are easily thrown or pulled out of place.

If powder is used, it is put on with a piece of absorbent cotton, which is then thrown away—not with a puff of swansdown that does service for weeks and collects other things besides powder in that time.

Dressing the baby should be done quickly and carefully, for he has begun to tire by this time. The first garment put on is the band, of course, and it may be tied, pinned, or sewed on in front—not at the side or back. In putting on the shirt, the sleeves should be opened back and slipped on all at once, as in this way they do not catch the fingers and arouse indignation. The diaper may be folded either in a square or in the form of a triangle but should not bind in any way; the petticoat and dress should be slipped on over the feet.

Then—why then, of course—mother cuddles the sweet, clean, little bundle in her arms and tells him all the secrets that mothers and babies have shared for ages—among others, whispering the one about his being the most wonderful baby in all the world.

The Truth about Antivivisectionists

ERNEST HAROLD BAYNES

IV

THE following autumn the antivivisectionists were unusually active. Bills calling for the total abolition of animal experimentation had been drawn up in California and Colorado and were to be put to referendum vote. Large sums of money were being spent by the antis for propaganda, and they were receiving strong support from societies in eastern cities.

To appreciate what the success of these activities would mean to the states involved we must realize that there would be abolished not only animal experimentation but all the safeguards which scientific preventive medicine has thrown around the people and their children.

If there were an epidemic of diphtheria, not a drop of antitoxin could be made or tested in those states. If there were an epidemic of typhoid, not a bit of antityphoid vaccine could be made there. It would probably mean the loss of great numbers of farm animals with the consequent suffering and death. If there were outbreaks of hog cholera, tuberculosis, anthrax or other diseases of animals, the farmers would have to take their chances of obtaining relief from other states. In short it would mean that sooner or later the people of the antivivisection-ridden states would have cause for bitter regret. The eventual repealing of disastrous laws would not bring back the dead.

It was no wonder that those responsible for public health in California and Colorado were deeply concerned, and strained every nerve to prevent the passage of the obnoxious bills. Public spirited doctors laid down their practices for months and, with the assistance of the press, conducted vigorous campaigns of education.

Dr. Hadwen of London Arrives

At the request of the Colorado Association for the Protection of Public Health, I went to Denver and thence to other parts of the state to show by means of illustrated lectures what scientific medicine means to any community and what madness it is to throw it to the winds at the behest of irresponsible fanatics. Thanks almost entirely to the efforts of the leading doctors and the press, the "death bills" in both California and Colorado were defeated.

Among the many things that the antivivisectionists had done to further the passage of the bills was to bring from England Dr. Walter R. Hadwen, president of the British Union for the Abolition of Vivisection. He lectured in Canada and across the continent to California. Later he returned to New York, where on November 18 he delivered a lecture on "The Medical Side of Antivivisection" in the Town Hall.

The notices read "Questions Welcomed," and the public was urged to come and answer Dr. Hadwen's arguments if they could. I happened to be in New York on that date, so I decided to go. Several times I had been challenged by the antivivisectionists to meet Dr. Hadwen, but it had never been convenient before. When I arrived the big hall was crowded, orchestra and gallery, but there were a few empty seats down near the stage at the extreme left and I took one of these.

For an hour and a half I listened to the speaker, who concluded with the very ancient, sentimental story about the dog whose master, in trying to drown it, fell into the water and was saved by the intended victim. The audience was almost 100 per cent. antivivisectionist, and throughout the lecture nearly every sentence had been applauded loudly, as though by the clapping of hands statements could be transformed into facts. The speaker sat down in a cataract of applause. The chairman, Charles Edward Russell, declared the floor open for discussion of the subject. A few took advantage of the opportunity, but with the exception of one persistent questioner who forced Dr. Hadwen reluctantly to admit that his views were not shared by any medical society, all the remarks were in support of the lecturer.

Then a stout, brilliantly henna haired woman arose in the center of the hall and, waving her arms, said in a loud voice:

"We have just listened to a wonderful lecture by Dr. Hadwen. We invited—we challenged our opponents to come here tonight and answer him. But where are they? Where are they?"

This seemed to be my cue so I arose. A woman from the back of the platform, the chairman of the Antivivisection Committee in New York, I understand, fluttered to the front of the stage, peered around until she got a good look at me, and then excitedly whispered some words in Dr. Hadwen's ear.

Dr. Hadwen stepped forward and shaking his finger at me yelled at the top of his voice: "Do

you know who that man is? Do you know who that man is? That is Ernest Harold Baynes, the author of an article entitled 'The Truth about Vivisection,' which was a tissue of lies. That's who he is."

If the gates of Hell had suddenly been opened there could scarcely have been more noise or confusion. Almost the whole house rose to its feet. Women fanned the air with their hands, trying to get the attention of the chairman, and from everywhere came angry shouts of "Stop him!" "Shut him up!" "Throw him out!" accompanied in many cases by most uncomplimentary epithets. It was evident that the devil himself would have been a more welcome guest than I. Above the hysteria I heard two or three voices—one distinctly a woman's—crying "Let him speak!" "Give him fair play."

The chairman was a sportsman. He quieted the shrieking women and even threatened to have some of the noisiest put out of the hall unless they desisted. "This man has the floor," he said. "Go on, sir."

Refuting Dr. Hadwen

I began by asking Dr. Hadwen if he had ever visited any American laboratories and witnessed the experiments of which he had spoken? He admitted that he had not. I then informed the audience that I had done so and called attention to many of Dr. Hadwen's mistakes, especially in matters pertaining to his own profession.

For instance, he had been regaling his audience with accounts of how in the laboratories the experimenters "tortured the brains of dogs and monkeys." I told him it was inconceivable that any one who has been through a medical school should not know that brain tissue is entirely insensitive and that therefore it cannot be tortured. He had described some of the Pavlov experiments, and the wretched condition of the dogs which were used in them. It was necessary to tell him that evidently he had never witnessed the experiments he described, nor seen a Pavlov dog in his life. I then told of how, at Chicago University, I had again and again played with "Buster," until recently the only Pavlov dog in this country, and one of the best cared for and happiest little dogs I had ever seen.

Such information was not at all palatable to an antivivisection audience that believed it had been listening to "one of England's most eminent physicians." I was interrupted by shrieks of disapproval and when I sat down it was amid a storm of hisses, tempered with a little applause.

Dr. Hadwen came forward to reply, but it was evident that he had no heart for his job. He contented himself with a weak attack on the magazine article which had caused him so much pain.

I was followed promptly by Dr. Lulu Hunt Peters, author of "Diet and Health, with a Key to the Calories." So gentle and so subtle was her attack that the learned lecturer never knew until the end of a sentence whether she was praising or damning him. But he was in no doubt at all when she had finished with him. She, too, sat down amid many hisses and some applause.

But the party was spoiled. Antivivisection had again been shown in its true light. The *New York Times,* commenting editorially on my tilt with Dr. Hadwen, remarked that the contest was hardly a fair one, as the upholder of scientific medicine spoke from personal experience, while "Dr. Hadwen spoke from imagination, his own and others."

The New York Debate

My last personal encounter with the antivivisectionists took place last spring in Community Church, New York. I had accepted a kind invitation from Dr. John Haynes Holmes to deliver to his congregation a Sunday evening address on vivisection. Later, Dr. Holmes thought that it would be fairer to have a debate, and the New York Antivivisection Society was invited to name a champion. Mr. Frank Stevens was the man selected and we met to debate the question "Should Vivisection Be Abolished?"

Mr. Stevens was a much better debater than I and he was very humorous too. I recall one amusing story he told to illustrate the blind faith which some people place in doctors.

A physician who had been bending over a very sick child straightened up and said to its mother:

"Madam, I am sorry to tell you that your little boy is dead."

Rising on his pillow the little boy protested: "No, I ain't dead," but the mother, laying him gently down again, whispered: "Hush, darling, doctor knows best."

But neither his ability nor his humor could prevail against the facts, and these were not on his side. To illustrate his difficulties, let me mention just one incident which occurred in the debate. Very innocently I had made the statement that it was through vivisection that Harvey discovered the circulation of the blood. Of course my opponent denied it, as I knew he would. He went further; he "proved" to the audience that the circulation could never have been discovered in this way. He even went into details to show that it was by the dissection of dead animals that the discovery was made.

I went to the edge of the platform and with outstretched hands appealed to the antivivisectionists themselves to uphold me in the statement of this well-known fact. Frantic cries of "No! No! No" came from every section of the church. I asked if there was a single anti-

vivisectionist who would uphold me in that one statement. Again came the cries of "No! No!"

In a sorrowful voice I said: "Well, I seem to be alone," and ripples of joy ran through the audience, which contained large contingents from the various antivivisection societies of New York, to all of whose members had been sent an urgent notice of the lecture.

Taking heart again, I continued, "No, I have one man with me. I wonder if you can guess who it is?"

As there was no response to this question, I went on:

"Why, it's Harvey himself. You see Harvey wrote a full account of his experiments in Latin. Allow me to read you a careful translation." Whereupon I drew from my pocket and read the document, which I had just received from Leland Stanford University. Of course it described the experiments in detail, proving conclusively what all well-informed people know, that the circulation of the blood was discovered by vivisection.

Cult Is Deadly Menace

Interesting and amusing as this campaign against the antivivisectionists has been from a personal standpoint, I have never for a moment lost sight of the fact that I am dealing with a deadly menace—a cult responsible for many deaths, the success of which would mean a sacrifice of life which can scarcely be estimated.

This fact is fully recognized by all our great physicians and surgeons; that is why they have fought antivivisection and passed resolutions against it. All scientists know the destructive nature of that cult's activities; that is why the American Association for the Advancement of Science has again and again placed itself on record as opposing those activities. All great educators know what antivivisection means; that is why the presidents of practically all American colleges have expressed themselves as unalterably opposed to it.

There is no need for a single antivivisection society in this country, and there never has been, since the introduction of anesthetics. The large sums of money misused by such societies have been collected for the most part under false pretenses. The evils they were to be used to mitigate do not and never did exist to a greater extent than they have always existed in hundreds of other fields.

A few doctors are heartless, of course: so are a few lawyers, farmers, chauffeurs, engineers and sea captains. Like all these, the doctors are accountable to the courts for their behavior, and cruelty to animals is punishable under existing laws. Furthermore, the men who go in for animal experimentation are of very high average, mentally and morally, and any individual who showed indifference to the sufferings of animals would find the disapproval of his associates a very restraining influence. A habitually cruel man would not be tolerated in any American or English laboratory. The same is probably true of other laboratories, but I am not so familiar with these.

As one whose whole life is devoted to the welfare of animals, I wish to express the firm belief that it will be for the very best interests of animals as well as human beings if antivivisection societies cease to exist.

They have never done any good; their leaders have nothing to show for the large sums of money they have collected and spent; they have caused mental anguish to thousands who have believed their false and harrowing stories of torture; they waste their own time in unnecessary and harmful campaigns, and they waste the more valuable time of many other people who are obliged to stand between them and the foundations of health which their success would undermine.

The money they spend to no purpose should be turned over as soon as possible to the legitimate humane societies, where it will be used to relieve real and not imaginary suffering. Real humanitarians can help to make important progress by simply withdrawing their memberships from the worse than useless antivivisection societies and their subscriptions from antivivisection magazines, and by transferring their allegiance to honest humane societies.

In all friendliness, I must tell the humane societies themselves that they will win more respect and more support from thinking people when they have cleared their skirts of the sentimentality which now hampers many of them, and stand for sane, humane education and the progress of science. Not all of them are in a position to do this at once—they have their problems. But they can watch for opportunities to be helpful to those of us who are striving on the side of humanity in its broader aspect, and presently they will be able to increase greatly their usefulness to their beloved cause.

In the meantime, the Committee for the Protection of Animal Experimentation, organized in Boston to handle a local situation, has developed into the American Association for Medical Progress, an incorporated national society with thousands of members. Its headquarters are at 370 Seventh Ave., New York. Its list of officers and its advisory boards are composed chiefly of men and women eminent in the fields of education, theology, science and animal conservation. Its chief purposes are to educate the public to a better knowledge of the value of scientific medicine, and to resist the attempts of ignorant or fanatical people to secure legislation that is dangerous to public health.

In the opinions of those most competent to judge, it will save life in direct proportion to the measure of its support.

What about the Health

Bronson Price is a student at Antioch College, Ohio, at which students alternate five weeks in the classroom with five weeks in an industry. HYGEIA readers will be interested in this student's observation of conditions that are still too common in American factories.—ED.

AT ONE time during my cooperative work at Antioch, I was employed for ten weeks by a firm which had not yet adopted up-to-date health provisions for its workmen. I was able to observe at close range the results of its policy on employees' health.

The products of this particular firm are certain automobile parts, and their manufacture involves several chemical processes. In the ten weeks I was there I became acquainted with nearly every department of the plant.

In the paint shops I experienced many of the unhealthful conditions suffered by the men. Quite naturally, perhaps, it was the dirtiest department in the plant. A day's work around the enameling tubs sufficed to cover a person from head to foot with black paint. Workmen were forced to make a complete change of clothing upon arriving at the shop, which is far from economical.

The benzine used easily penetrated the leather of the shoes and became very irritating to the feet, causing blisters, especially in warm weather. A close fitting cap had to be worn constantly to prevent the paint from getting into the hair and scalp. The face and hands became covered, and at night it was necessary to scrub with benzine, the constant use of which cracks the skin.

Smoke Affects Eyes, Nose and Voice

But the most unpleasant effect of working in this shop was due to the vaporized enamel which escapes from the baking ovens. After painting, the parts must be placed in giant ovens and heated to a temperature of 500 degrees, in order to dry and harden the enamel thoroughly. This temperature causes some of the paint to vaporize or form a heavy blue smoke which pours into the room whenever the ovens are opened.

My first day in this smoke I found most uncomfortable. When I opened the window to get a breath of fresh air I was informed that this was against the rules, as it would lower the temperature of the room and would be harmful to the paint. After spending five weeks in this smoke I became accustomed to it, but found I was much the worse for it. It affected my nose and throat to such an extent that I could not breathe well at night, being forced to breathe entirely through my mouth. It also proved very harmful to the eyes, causing a steady flow of tears. While at work my eyes often burned, and upon awaking in the morning they were not in good condition. I found, too, that my voice failed at intervals, another complaint common to the men in this department.

This trouble could have been greatly alleviated by a system of ventilation that would carry the smoke out as it left the ovens, instead of permitting it to spread throughout the room and gradually seep out of the two foot ventilator.

The company seemed to take the attitude that it was up to the men to get used to conditions as best they could if they wished to hold their jobs.

Metal Dust Injures Lungs

In the metal polishing and grinding rooms I noticed other undesirable conditions. Polishers and grinders are paid a piece rate which brings them a very good income; otherwise the work would be considered too undesirable. They stand all day before an emery wheel grinding parts to the required degree of smoothness. The room is pervaded by a peculiar and unmistakable odor—that of very fine metal dust in the air; this is most offensive to the uninitiated.

This dust is harmful to the lungs, as the men know. While I was there two men were forced to leave their jobs in this room because of the

of the Factory Worker?

BRONSON PRICE

development of tuberculosis. The men say it also affects the stomach, causing a decided loss of appetite. They do not like the job for they see in themselves the results, but the high rate of pay is tempting.

Upon the advice of an efficiency expert the company installed a suction device near the buffing machines to carry off the valuable nickel dust; this is collected and used again in the electroplating rooms. The workmen incidentally profit by this improvement.

In the electroplating department several serious accidents have occurred from acid burns and poisoning. Here the process is largely a matter of chemistry and the men in charge are none too well versed in the subject.

Upon one occasion, as I passed through the room I noticed a box of what looked like large moth balls and I stopped to examine them. As I raised one to my nose to smell it, the foreman yelled at me to drop it or it would drop me. I obeyed and learned afterward that it was cyanide, a highly poisonous compound used in cleaning the metal of oxides. Its poisonous properties had been proved in that very shop by careless and ignorant workmen.

Furthermore, many of the caustic compounds used in this process produce serious burns on the skin if the solutions in the electroplating baths splash out by accident, as often happens. Boots should be provided or stipulated to prevent these solutions from reaching the feet.

Wet Hands and Floors—Electric Shock

In this department especially, there is much danger of being seriously shocked in turning the electric current off and on. The men are often wet and the floor is also. In handling the switches, a shock is frequent from this cause since the switch handles are not properly insulated. More pains should be taken to have the men understand just what they are doing and how to do it, rather than to let them find out for themselves with the results that are sure to follow from such a practice.

An incident in the company's legal history serves as an example of the damage liable to result from one person's ignorance. A new man was put in the electroplating department as foreman. He permitted the waste products of the tanks to be drained into a nearby creek, with the result that livestock along that creek died. The company found itself with a law suit on its hands which proved very expensive.

In the machine shop, experience has taught the company to take a few precautions in regard to the safety of its workmen. The company is careful to hire only tradesmen to operate such machines as punch presses and drills. These are equipped in such a fashion that the workmen can stop or start them instantly at will, thus lessening chances of maimed fingers. In handling heated metals, proper gloves and tongs are furnished to avoid burns from dropped or slipping parts.

Dark and Awkward Stairways a Danger

Stairways are frequently built carelessly in a shop. They are put up in some corner or out of the way place and built in a shape to fit the corner, with little consideration for convenience or safety. Moreover they are often lacking in adequate light, so that a new employee must grope and stumble his way until he becomes accustomed to its particular shape. Many factory stairways lack a railing, or if there is a railing, it is probably a slipshod wooden affair, an excellent thing from which to get a splinter.

Transportation within a factory always has its dangerous points. In my experience, these dangers have centered about such things as elevators and trucks. A freight elevator has cost this particular company about $3,200 in damages paid to workmen who were victims in its accidents. An elevator constructed to lift tons at a time must be very carefully built to withstand strains. When an elevator begins to buckle or act oddly, the men aboard are bound

to lose their heads unless they know just what to do. To avoid the mistake of having someone start the elevator from below when a load is being put on it, a system of electric warning bells or signals should be installed.

I worked in the shipping department for three weeks at a job which involved the handling and trucking of 400 lb. crates. I saw and experienced accidents due to worn out trucks and uneven floors. In one case a man had set his crate on end on an uneven floor, and as he withdrew his truck, he saw that the crate was falling over toward him. He jumped backward in time to get all but his arm out of the way. The injury was not serious but a difference of a quarter of a second might have made it very much so.

Workmen Should Take Precautions

Workmen can contribute to their safety and welfare by taking fire precautions. During noon hour, a large percentage of the men smoke inside the factory. Men should be careful to see that their cigarets are not flipped away carelessly. Once I saw smoke rising from a wooden box and there I found a cigaret that had been tossed away, burning an ever-widening circle in a dry burlap bag.

Automatic sprinkler systems are an excellent precaution; hand fire extinguishers should be placed in conspicuous and easily accessible positions.

Overtime, when forced upon the men, often proves unprofitable to the company. It is a common experience among workmen that an extra hour after the regular ten hour shift is a most dragging and tiresome affair. The men are unable to continue their work with the same degree of accuracy and carefulness after their regular quitting time is passed. In cases in which a company finds it necessary to run the plant overtime for a season, it is advisable to inaugurate another shift of workmen, rather than attempt to push its men harder. Many companies find relief from this situation in a night shift.

An adequate water supply in a shop is essential, so that the men may drink freely during working hours, especially in hot weather. Many shops find it worth while to provide places where men can wash up before eating their lunches.

Making the Home a Health Center

THE home is the natural health center. Outside agencies are only expert assistants to it. This means that the privilege and duty of maintaining the children's health belongs decidedly to the heads of the home.

The things in the home which have influence on the health of the children are:

1. The health of the parents and other members of the family.
2. Living conditions in the home, such as cleanliness, airiness, sunlight, crowding, personal harmony or discord.
3. Diet.
4. Training.
5. Recreation.
6. Medical and dental supervision.

On May 1, Child Health Day, then, as on every other day, it would be well for parents searchingly to appraise each member of the family in relation to the points mentioned above. This can be accomplished by means of the following considerations:

1. A daily morning inspection of every child for evidences of acute disorders.
2. An inspection of each child for chronic conditions, such as pallor, poor posture, failure to gain weight, undesirable habits, headaches, defective vision and hearing, constipation.
3. An arrangement by which the children go to the dentist every six months.
4. A provision for children to have medical examination at birth, two weeks, one month, three months, and every three months thereafter until two years of age; then yearly, or oftener, if any unfavorable symptoms arise.
5. A check-up on the condition of the mother's health, with arrangement for a medical consultation annually.
6. A check-up on father's health, with arrangement for health examination annually.
7. A check-up on health of other members of the family, particularly as to children's exposure to tuberculosis or other communicable diseases.
8. A survey of the sanitary conditions of the home, noting especially whether sleeping rooms have windows open at night and whether every room receives all the sunlight possible.
9. A study of the children's diet to see that each child is getting the kind of food he needs for his particular age, and to see that the food is well balanced and sufficient in quantity.
10. A check-up on each child to see that he is learning to eat proper foods and is developing regular habits of rest, sleep and elimination.
11. A check-up to see that each member of the family gets some regular outdoor recreation.

Conditions found can usually be remedied within the family circle. If this is impossible, the family physician, the health department, or other outside agencies can be called in for assistance.—*American Child Health Association.*

Conquering My Nerves

A Story of Psychanalysis

MONTANYE PERRY

JUST about a year ago I awoke one morning feeling very, very tired. That was not uncommon, so I arose and went about my usual business until mid-morning, when some one in the room broke into shrill, rasping screams.

My secretary, typing placidly but a moment before, rushed toward me. I thought she was doing the screaming.

"Stop that!" I snapped at her, and fled into the next room. The noise followed me. So did William, my husband.

"Make it stop!" I shrieked, but the screams grew louder.

Presently I realized that I was making the noise. Yet I couldn't stop it. It was the most curious sensation—as if I were looking at a woman in hysteria, and unsuccessfully coaxing her to be quiet. All the time William was begging "Don't, dear! Everything's going to be all right."

Followed a long, hazy day of which I remember only detached scraps. Even after a year my subconscious mind (which I didn't then even know I had) frequently presents me with a fresh fragment. My secretary, white faced, bringing hot water bottles, cracked ice—some one whispering—a nagging agony quivering along my spine—my sister, the most controlled and undemonstrative of women, beginning to cry and running out of the room—a man in an army officer's uniform somehow quieting the pain, agreeing cheerfully with my insistent "I'm not ill! I haven't time to be ill!"

I Conceal My Delusions

I need not go into the long months of mental and emotional strain that preceded all this. It is only necessary to state that for more than a year I had been a victim of two persistent hallucinations. One was that telephone and door bells rang in our apartment, waking me sometimes once, sometimes many times in a single night. The other was that I was carried bodily into a low, desolate house, quite empty of furnishings, where I sat all alone with rain dashing steadily against the windows and with flat, lifeless fields covered with muddy water looking in at me from every side.

I couldn't tell these to anybody. It seemed vitally imperative to keep the delusions a secret.

That army physician was a family friend. Because our own good family doctor was in Europe and I objected to a stranger, William had asked our friend to leave his hospital full of ex-service men and trail to us through twenty miles of tubes and ferries.

He was sympathy and tact personified, but my mind was centered on concealing my foolish imaginings. However, at the end of forty-eight hours the pain was gone. I was outwardly placid and utterly exhausted. Also, I was tremendously ashamed of my hysterical outburst.

Then it was that our friend delivered himself of a few short and crisp sentences, from which I gathered that in bringing myself to this state I had used little intelligence and less judgment. The world would manage to bear its loss if I never wrote another story. I was to consult a nerve specialist at once.

Passed about from Doctor to Doctor

So I went to Dr. A——, who passed me on to Dr. B——, who gave me a note to Dr. C——, who suggested Dr. D——. There seemed to be a strong feeling of brotherhood among them—all willing to let the other fellow have a share. Their general diagnosis was "Hm-m-m," followed by a specific mutter of "disorganized nerve centers" or "emotional reactions" or "vitamin A." The longest sentence any of them wrested from me was "I don't remember."

In the course of time I reached the eye specialist. It would have been no surprise had he said, after testing one eye, "Now that fixes up the left one. I don't do right eyes. I suggest Dr. Blank for that one."

But he went to work with good humor, patience and almost incredible skill and fitted glasses which enabled me to win a sight contest at a house party. I found the infinitesimal star in the Great Dipper which is the Indian test of eyesight. And I could read or write indefinitely, in comfort.

When my glasses were perfectly adjusted the blow fell.

"That's all I can do. Now go consult a psychanalyst."

"What's a psychanalyst?" I ventured.

To think that only twelve months ago I didn't know what a psychanalyst was! For that matter, do I know now? Does anybody know?

"A psychanalyst cures your body by releasing something in your mind."

"There's nothing in my mind," I declared hastily.

"Nonsense! I've eyes in my head, you know. You're tense. Afraid to let go for an instant. You've got something on your mind poisoning you. Go get rid of it. Don't be silly!"

He was one of those rare souls who stop talking when they have achieved their effect, instead of nagging on until one grows obstinate. I went home with that curt "Don't be silly" beating against my brain, had a horrible night and decided to try the psychanalyst stuff.

I decided to consult a Dr. Fellowes. My first shock came when I learned that the lady had no unengaged time before Saturday, this being Tuesday.

At two o'clock on Saturday I was admitted to a diabolically cheerful room. There was a golden rug upon the floor. The cream-colored wicker chairs were cushioned with optimistic chintz.

On the wall a prancing nymph in a golden frame expressed eternal satisfaction with the universe. A wood fire cackled on gleaming andirons and a yellow cat stretched in its warmth grinned at me. "Hello, Pollyanna," I said. It knew its name, and chuckled.

Five minutes passed while I tried to raise myself to the standards of the atmosphere. Then the door opened and a very tall lady came in, radiating sweetness and light. She wore a trailing robe which just escaped being yellow. Her hair did not escape it. The pendant that swung from a golden chain was the same cold blue as the eyes which she fixed on me with a sort of majestic graciousness.

Gray and Lavender Repose

She led me into an inner sanctum. Gone was the cheerfulness, replaced by a determined note of repose. I noted that the pictured nymph in this room was sleeping, in a dull silver frame. There was a gray wicker chair into whose lavender cushions I sank gratefully. Dr. Fellowes had stopped radiating sweetness and light. She was firmly placid. Almost exhausted by the restfulness, I waited nervously for her to speak.

"Suppose you tell me what's the matter," she said.

"Nothing is the matter," I declared. "I had a queer breakdown several weeks ago. I screamed and cried all day. Now I don't sleep very well, and—and here I am!"

"Did you ever scream and cry before?"

"Never!"

"Why did you do it?"

"I don't know."

"Are you married? Any children? What is your work? Do you like it? Why? Do you like animals? Why not? Do you like games? Why not? Do you like music? Why?"

So on, for some time. I was on the defensive, answering in the fewest possible words. It was time for her to say something!

She did. "There is much to be done before I can unlock your mind. If you will come to me twice a week for three months we will be able to reach a complete understanding."

I knew that twice a week for three centuries would bring the lady and me into no closer communion, but I refrained from voicing my inharmonious thought in that gray and lavender haven of tranquillity. However, I had to say something, so I asked how much it would cost.

She led me back to the optimistic room before she answered: "Three hundred dollars for the three months."

"I'll telephone you when I decide," I said weakly. She maintained her noble calm but Pollyanna stopped purring. And that was all of that, except the bill. It was on a lavender billhead and the lavender envelop was lined with gray. Fifteen dollars for that half hour. Well, it must cost something to maintain that atmosphere.

Sex Antagonism Is Blamed

Going home through Forty-Second Street, I met my friend Thyra and told her where I had been. She is one person who can be depended on to voice her honest convictions audibly.

"Mercy!" she exclaimed. "That won't do at all! You must go to a man. A woman simply arouses your sex antagonism."

"What has sex got to do with it?" I demanded, revealing the whole abysmal depths of my ignorance.

"Why, just everything. That's what it *is!*"

"What *what* is?"

"What *every*thing is. Sex. A woman can't release your subconscious mind because she sets up a sex antagonism, don't you see?"

"Have you been psychanalyzed?"

"No, but my sister-in-law has, and she told me all about it, and I have read a lot of books and I've psyched Seymour. I told him a lot of things that were wrong with him and just how to correct them."

"If every woman who does that for her husband is a psychanalyst, there are just as many of them in this country as there are wives," I declared.

"You're flippant because you're on the defensive," Thyra diagnosed with unexpected perspicacity. "Have tea with me tomorrow at the Waldorf. I'll bring my sister-in-law."

So I presented myself in Peacock Alley at four next day. I had invited my friend Mary, who looks like a cunning sub-deb, but who is an earnest-minded Socialist. When we were all settled at a table I took the initiative.

"Tell me what it is all about," I demanded. "What does this stuff do for you?"

"Lets you down. Teaches you to relax. You know how excitable I used to be. And now I'm poised."

Scarlet-cheeked, vociferous, both little hands clutching desperately at the table's edge, Thyra was an interesting study of power through repose. I giggled, and glanced at cool, stately sister-in-law. She was gazing at Thyra with an expression I couldn't quite fathom. Was it the analytical gaze of a scientist, or just the I-see-through-you gaze of an in-law?

But as I wondered, Thyra plunged into a recital of mental and physical mysteries which reduced me to a gasping speechlessness. Her sister-in-law's calm sentences filled up the spaces when Thyra's vocal bombs paused.

I listened dazedly while they discussed things I never had heard spoken of before; things I never knew were spoken of. All about suppressed desires and what made them and how to get rid of them. All about how terrible it is for children to love their parents too much. All about dreams and complexes—your dreams give away your complexes, or else it's the other way 'round—and how all of it is sex. Everything is sex. Nothing is anything else. And everything buried in the subconscious mind must be dragged out to the light because it is sex.

"Don't you see, the subconscious hides all these things. It won't let them out in the light," shrilled Thyra.

"The subconscious isn't just another name for a sense of decency, is it?" I asked meekly. That set them off again—faster—harder.

All at once my subsconscious did something for me. I had been realizing that sometime, somewhere, I had met those queer, vaguely repulsive words before. Now I knew when it was. I saw myself, a check-ginghamed mite of ten years, on the floor in my mother's bedroom, pouring over a book with queer, shivery pictures and half-understood text that held me morbidly fascinated; then, my mother swooping down on me, telling me that was a "doctor book." Only grown-ups could read it. I was never, never to touch it again. I didn't. I never could find it again.

But a lot of those glibly uttered words had been in that old book. I was sure of it.

Inhibitions and Complexes

"Psychanalysis," said sister-in-law, "has enriched our language with scores of totally new expressions."

"I'll say it has," I agreed slangily. "At least it has dragged a lot of expressions out of the silence."

"You're getting the idea," Thyra beamed. "All these fearful things we have been suppressing for years we frankly admit now. The only question one has to decide is what we will do about them."

"Wouldn't it be a good idea to continue to suppress them?" I suggested. Little Mary giggled, but the others looked pained.

"Inhibitions and suppressions lead to complexes which are commonly called insanity," sister-in-law explained patiently. "As a matter of fact, 'insanity' is an outgrown term. Psychanalysis has erased the border line between sanity and insanity."

"I'm inclined to agree with you about that," I said, so demurely that Thyra looked suspicious.

"Being flippant doesn't get you anywhere," she said. "Tomorrow you go to see Dr. Hallett."

Little Mary and I were a block from the hotel before we exchanged a word. Then—"I was scared," said she solemnly. "I never heard such conversation before. I tell you there's something wrong with a science that furnishes an excuse for so much morbid discussion. Think of reading unwholesomeness into the love of a mother for her child!"

If it was too much for a free-thinker like Mary, what could be expected of me? I didn't go to see Dr. Hallett, and I was more discouraged, consequently more imaginative and sleepless than ever.

Out for a walk one day I met Elizabeth. She told me a funny story about a man who had just sprung out of a limousine and run after her to pay her fifteen dollars. He had borrowed it from her a year before, because he was going to be evicted if he didn't pay his room rent.

"He had practically all the bank notes in the world in that roll today," declared Elizabeth. "He read some books on psychanalysis a few months ago and it sounded good to him, so he opened an office and treats people for ten dollars a half hour. He is just starting a correspondence course. More power to him, I say!"

"But he's a swindler," I protested virtuously.

"Not necessarily, my dear. It's worth good money to have some one sit and listen to your troubles. Think of the relief to the friends of the sufferer! And often the patient does improve. There's nothing new about this curing-by-conversation stuff except its new name. A very wise man said, centuries ago, 'Pleasant words are as honeycomb, sweet to the soul and health to the bones.' That's the idea and everybody is falling for it. I know a woman who took a three-month course in so-called psychanalysis, went out to a mid-western town, opened a studio and in just exactly six months took $20,000 out of that town.

I Attend a Psychology Lecture

"Some of them call it applied psychology. There's a woman giving a series of lectures up at Dr. Blank's church right now. Go on up. It will amuse you and 'a merry heart doeth good

like medicine,' as was also said by the wise man."

I went. Women were pouring into the auditorium. A few young ones, a few old, but mostly of that pathetic type with wistful eyes and a frightened expression, who are appalled by the vanishing of their youth.

I glanced at a printed folder. Magnetism, grace, charm, health, business and financial success were promised those who heeded the instructions of the lecturer. There were testimonials from those who had overcome everything from crossed eyes to inability to hold a job.

The lecturer was a tall, graceful woman, liberally endowed with charm and forceful personality. For thirty minutes she held that audience spellbound while she proclaimed such astoundingly new precepts as: repeated self-denial strengthens the will power; long hours of sleep quiet the nerves; persistent thinking leads one toward a desired goal.

These things sounded original, even revolutionary, as the woman stated them. She had beautiful deep brown hair wound in thick braids around her head and she assured us she had achieved this luxuriance from short, rapidly graying locks by drawing her comb through them, saying with each stroke "I am combing my hair long and brown!" It is a supreme proof of her convincingness that not until the magic of her presence was removed did it occur to me to wonder what she dipped the comb in.

This was the last free lecture. After it, one might enroll for a course of twenty lessons for $20.

"Will any one pay $20 for it?" I asked myself. In the ten minutes that I watched, twenty women paid in that amount and received in return a card of membership. It was too pathetic—those wistful-eyed, tremulously eager women of forty-odd, clutching at the vanishing skirts of romance, enthusiasm and joy-of-work!

Afterward I learned that more than 300 women enrolled for that class. Six thousand dollars for twenty evenings! The wise man also said: "Much talk of the lips tendeth to penury," but he never had heard of applied psychology.

But still I spent my nights in desperate fearfulness. Still I saw things that were not there. Still I fought, with unreasoning terror, to keep my secret.

Then, one morning, my secretary said: "Dr. Forrest is back from Europe. He is coming to see you at three o'clock."

That's the kind of secretary she is. Everything efficiently arranged and I told what to do. Well, I liked Dr. Forrest. One of that fast-vanishing race of general practitioners, he was William's physician rather than mine. He had brought William through a number of severe illnesses and I trusted him absolutely. He wouldn't pester me with foolish, prying questions.

I Unburden My Fears

He didn't ask any questions. He came in with his own delightful air of having come to make a social call and for an hour told me about his amusing experiences abroad. Then he suggested a hot foot bath and a drink of milk at bedtime, told me to sit up and read a pleasant book if I awoke, or didn't feel sleepy, and said he would see me again next day. That surprised me but I didn't mind. I liked having him come.

He came every day for five days and talked with me on many, many subjects. He was witty, philosophical and understanding, and in his presence I absolutely forgot my haunting fears and troubles. Then on the fifth day, suddenly, with no previous thought or resolution to do it, I found myself telling him all about it!

He listened quietly while all my shock and sorrow with their resultant burden of fears and foolishness rolled from my lips. Then he said with a gentle matter of factness which hurt me not at all:

"It is a pity you couldn't have told this before. But I can understand how it was. You couldn't talk to strangers, and you did not want to worry your husband. But it's all over, my dear. You won't hear bells any more. Oh, a few times possibly, but just remember it is only a little recurrence of the old nerve habit and don't let it worry you. It will all go away now your mind is unburdened."

I believed him and my faith was justified. Only a few more times did the bells ring. Not once again did hallucinations of sight come to me. Joy returned to my spirit and health to my bones. The wise man was right!

How I Put Myself to Sleep

PRIZE LETTER CONTEST

First Prize Letter—$25

I HAVE little trouble in putting myself to sleep, for regularly I:

1. Rest before going to bed.
2. Use comfortable mattress and springs.
3. Encourage feeling of luxurious ease as I get into bed.
4. Stretch slowly, luxuriously, thoroughly and relax slowly.
5. Engage the mind with pleasant contemplation of events or people. Avoid unpleasantness or controversy.

For overexcitement I try one of these exercises:

1. Lying on side, knees to chest, hold the position vigorously for a minute or two, then press toward foot of bed firmly but slowly until stretched as though on tiptoe. Relax slowly and luxuriously.
2. Lying on back, raise knees till feet rest flat, swing hips vigorously, rapidly, flatten small of back, rubbing vigorously against mattress. Slow down, relax slowly, stretch out.
3. Lying on back expand upper chest, trying to flatten out from tips of toes to upper chest; hold; relax slowly and gradually.

For slight indigestion or chill I try any of these:

1. Warm feet well.
2. Place hands over stomach (better than a too-hot water bottle).
3. Get a hot drink, preferably plain water.

As last resort, I accept wakefulness philosophically and humorously. I get up (warmly wrapped) and do one of these things:

1. Wander about a bit.
2. Eat lightly.
3. Read something amusing.

One needs to acquire a habit of going to sleep easily, instantly, soundly. To this end I bought a comfortable bed, with first-class mattress and springs. This is one of the best health investments I ever made. I indulge this idiosyncrasy: The top sheet and covers are left loose. Thus I may use the camper's roll, a quick jerk of the shoulders that tucks me in snugly on either side, a slight lift and kick of the feet that brings the ends up in a loose warm fold. This I learned to do after suffering severely from sciatica when the well-tucked-in covers drew so tightly over my feet as to cause unbearable pain. Special stunts that have brought relief from nerve strain may fit the case of another, and I have listed some which I still employ at rare intervals.

No matter how late I come in, I always sit in a comfortable chair, warming my feet, and browsing over the newspaper, an amusing story or light article, until I feel rested. I always get ready for bed with a feeling of indulging in luxury. Nothing could be more delightful than the slow, easy stretching of back, shoulders, hips, abdomen, chest—rotating, squirming. Meanwhile the mind is wandering into quiet avenues of thought which always bring peace. Sleep is usually sudden, deep, satisfying. I have the habit now of expecting such sleep and I get it.

MARY ADAMS,
Franklin, Ind.

Second Prize Letter—$10

IMPELLED by frequent necessity (my family being represented by myself, my Better Half, and seven Little Halves), I admit much devising of sleep-inducing schemes, and I cheerfully pass on a few.

Generalities.—A bed to suit the sleepless sleeper.

Sufficient and not too much covering.

Fresh air, to prevent air-hunger restlessness.

A digestible evening meal; not one calculated to convert the stomach into a gas factory or necessitate first aid from the plumber. (This is not a bad rule for all meals.)

Suggestive Details.—The twins, requiring a perpetual motion inhibitor, permit the approach of the sandman when one small foot is anchored to the bedside by a soft bandage.

The "near-twin," who used to sing and talk until all hours, was finally diverted by a sharp spat (through the covers). A few repetitions of the surprising spat, with a goodnight kiss, disposed of that trick.

A lovely Red Cross lady on a calendar, answering Sister's call for "something pretty to look at" brought sweet dreams and enabled her to "read and write the 31's both ways" when she started to school at half past five.

The suggestion that Big Brother repeat his prayers or see how many psalms he could say proved a sure-fire cure for scareful thoughts and visions.

Father, not properly interested in matters hygienic, succumbs promptly to hot milk, toasted feet and information concerning vivisection, antitoxins or vitamins x, y, z.

So Mother sitting up to take notice of these and a mixed pickle variety of other worries might never sleep, were it not for a firm, flat bed by an open window, a soft pillow rolled under aching shoulders, and a headful of day-dreams and memories.

Tonight she'll again hunt the wary ducks on the dear old Yellowstone. She'll listen to the steady beat of oars or the stealthy dip of Dad's paddle round "a likely point." She'll gloat over the ever changing vista of the gorgeous October scene; thrill to the boom of the gun. Oh, the superb leap of the straining retriever! Maybe "a limit bag." Perhaps an exulting laugh over the escape of the feathered beauties.

So on and on—by barren cliffs or fields still brightly green—through leafy aisles to broadening reaches of deep, gleaming waters—till suddenly, the sun drops red behind the purple buttes and over the lengthening shadows the night softly descends.

The oars are shipped. The great river sweeps us on to the lights of home. How fret in such vast solitude? Drink deep of its infinite peace. Rest in that sweet silence, not broken, just made manifest by the soughing of winds through the pine trees or the music of "singing rocks" rolled seaward by the same swift flood which bears us home—to sleep. Ah, such a sleep as knows no "raveled sleeve of care" or even dreams.

R. G. B.,
Genoa, Ill.

Third Prize Letter—$5

I HAD suffered a nervous breakdown. Among my other troubles was sleeplessness. For several weeks sedatives were used, but in time this remedy lost its effectiveness. The question then arose: Shall I resort to stronger sedatives, or shall I win out over the sleeplessness in a more natural way? The latter alternative was decided upon.

In the following brief account I shall tell how I beat the bugaboo that made the nights long and terrible. It will be noted that the remedies resorted to are all simple, such as any one can follow.

Just prior to retiring I drank a cup of warm milk, changing at times to malted milk. That was the first step.

Immediately upon getting into bed I relaxed every muscle and nerve in my body so far as I could locate them. It required ten minutes to do this sometimes, but I kept at it until I could feel myself thoroughly relaxed. I relaxed my head and neck; dropped my tongue from the roof of my mouth till it rested on my lower teeth; relaxed my shoulders, arms, hands, the torso, my legs, my feet. I relaxed until I could feel the sensation of sinking down into my bed, just as if I was sinking down through it.

My next move was a mental treatment. I refused to allow my mind to wander all over everywhere from Dan to Beersheba; for I had learned that this habit of mental gamut from one thing to another was ruinous to sleep; it tended to increasing wakefulness. This requires will power and real determination, but it can be done. The mind will yield to this treatment if it is faithfully followed. One may not accomplish it the first night, nor the second, but within a few nights the man will be master of the mind. So I found it.

And I decided to stop worrying about my sleeplessness. More than one night I said something like this to myself: "All right, old fellow, if you want to stay awake, if you are fool enough to lie awake when you ought to be enjoying good sleep, I suppose you'll have to do so, but I'm not going to give you the satisfaction of thinking about it, or of worrying over it. So go to it and have a good time, but I shall be engaged in pleasanter thoughts."

The last part in my program was to engage my mind in living over again some of the happy experiences of my life. I reviewed slowly some summer vacation period that had been unusually pleasant and memorable; I played over again eighteen holes of golf with some of my friends; I built an air castle that was especially pleasing to my fancy, seeking to realize by anticipation some of my cherished ambitions; I named over to myself a list of those whom I cherished as among my best friends, and sought to appraise to myself the value of their friendship; I lived over again some of the happiest experiences of my childhood; or I resorted to prayer, endeavoring to enumerate the many things for which I had reason to be grateful.

CHESTER F. RALSTON,
Oberlin, Ohio.

Teaching First Aid to High School Students

B. EVA HOEHN

SELF-PRESERVATION is a primitive instinct. When this instinct is used as a basis for teaching, the subject makes a natural appeal to the student. Civilized man has gone a step farther; he is altruistic. He desires to help others, to aid the injured and relieve the distressed. Any school subject that can make these two appeals will be of interest to those of the adolescent age and will be popular in the high school.

In the Community High School at Carlinville, Ill., first aid has been made a subject with just such an appeal. The usual textbook physiology does not interest the average student, but when it is presented in connection with a live, practical laboratory course in first aid, the classes each year reach the limit of membership. Students are very frank in saying that it is the first aid which attracts them to these classes. They want to know what is the right thing to do in case of an injury and how to do it.

A young woman thrown out of a car bled to death recently because her companions did not know how to stop the flow of blood. A young man lost his life because of an infected blister; it seemed so trivial an injury that he did not give it proper attention. A boy's life could have been saved had his companion used artificial respiration until the doctor came.

Definite knowledge of the seriousness of injuries and the proper methods of attending them, given in connection with physiology and hygiene in our schools, enriches the course and is of lasting benefit. The student may in later years forget some of the fine technic of bandaging, but he will not forget the underlying principles, because they have become ingrained by long practice.

Gives Student Assurance in Crisis

The confidence and self-assurance developed in the individual, the feeling that he is master of the situation, is inestimable. Our students many times have stated how much they value the feeling of confidence that such a practical course gives. When others stand around helpless and panicky, they take charge of the situation, in the home, the shop, on the road or in the woods.

One boy relates how he administered artificial respiration in a case of drowning and saved the life of a girl. A girl living in the country tells how she cared for the fractured arm of her brother until the doctor arrived. The quick work of removing from the eye of a classmate a splinter of glass from a burst electric light bulb is accredited to the school first aid team. One mother reports that her son "lives with the iodin bottle" and never fails to touch up an abrasion or cut.

The Community High School of Carlinville is more or less unique in offering a course in first aid in connection with physiology. The laboratory periods are given over to this phase of the subject. The course consists of all aspects of first aid, such as the mental attitude of a first aider toward the patient, all forms of injuries and their treatments, the home medicine cabinet with its simple, necessary aids, and transportation of patients.

First Law of the First Aider

The first law of a first aider is that he is not a doctor, but only a temporary helper until the doctor arrives. His slogan is "to deliver the patient to the doctor in as good a condition as he found him." At first thought this seems a strange statement, but if a first aider does not stop arterial bleeding at once, if he does not cover a wound with antiseptic dressings, if he does not overcome shock, if he carelessly handles a simple fracture so that a compound fracture results, he is not delivering the patient to the doctor in as good a condition as he found him.

In the organization of these classes, our method is to teach first aid as laboratory work for ninety minutes twice a week for one semester. Classes are divided into teams of six students each, each student taking his turn at being patient. Appliances and remedies used are simple. Most of them improvised, since these are what he no doubt would have to work with in an actual case. Texts used are the American Red Cross Manual and the manual of the Bureau of Mines and Minerals. The apparatus consists of triangular bandages, compresses, roller bandages, picric acid gauze, splints of all lengths, padding, broken back splint, stretcher and a first aid cabinet containing iodin, aromatic spirits of ammonia and other simple remedies.

The physiology of the injury is discussed, then practical problems are given and the class proceeds to treat the patient. Such a problem as the

following is typical: "A boy fell from a tree and caught hold of a live electric wire with both hands. Rescue him, treat and dress the wounds."

The students have learned how to insulate themselves, how to administer artificial respiration and overcome shock, and how to dress the burned hands. They go through the entire treatment upon the gymnasium floor as if it were an actual case.

Another problem may state: A boy crawled between cars on a crossing, fell between them as they started up and received a crushed femur, third and fourth ribs fractured and a wound with bright red bleeding in the left temple. The students stop the bleeding, dress the wounds, bind the ribs and splint the fractures, all the while treating for shock. An endless number of possible problems are worked out in this manner.

This work, besides adding interest to physiology classes, has, because of its practical appeal, attracted public interest outside the community. The state department of the Bureau of Mines and Minerals conducts both written examinations and practical demonstrations in first aid work and it issues to successful candidates a certificate and first aid emblem. Seventy-five of our students received this recognition last May, along with first aid teams from mines.

The proverb, "An ounce of prevention is worth a pound of cure," finds application in first aid work. It seems on first consideration that the first aider awaits the injury rather than seeks to prevent it, yet it is noticeable that first aid students become more careful of their own and their companions' actions, because they realize how many injuries are due to carelessness and how many are preventable.

Choosing a Summer Camp for the Child

THE mails these spring days are heavy with the literature of summer camps. Pamphlets hold out to youthful readers alluring pictures of canoeing, swimming, horseback riding, evenings around the camp fire and all the wholesome pursuits of an outdoor existence.

No summer outing is more profitable to the city child than that of the well conducted summer camp. Six or ten weeks of camp routine, with its schedule of work and play, is apt to make any child more robust, more self-reliant and resourceful, better able to cooperate with others and a keener lover of outdoor life and nature.

But, with such quantities of camps to choose from—mountain, lake, forest and grove—how are parents to know which is most desirable?

Camp Sanitation Is Important

Since the first aim of the summer camp is to produce healthy youngsters, the wise parent will look into the provisions that are made for insuring good health.

In the first place, it is well to make a study of the camp site. More than natural beauty of landscape and bracing air are needed to make the summer camp a safe place for children. Very important is it that the camp have a safe water supply and a sanitary method of waste disposal.

Care should be taken that the camp does not receive its water from polluted streams or unsafe wells. Those in charge of a summer camp have failed in their duty if they have not had an analysis made of the water supply. In most camps, not too remote from civilization, standard sanitary equipment can and should be installed. This should at all times be kept in good working order, or it may constitute a serious menace to health.

When parents have satisfied themselves that the camp has made ample provision for its sanitation, they should concern themselves with possibilities for contagion. When so many children from various communities and states are gathered into one camp, there always is danger of the outbreak of communicable diseases. Among a group of children there are almost certain to be carriers and often actual beginning cases of disease. The well conducted camp will provide for the examination of the children before they encamp and for periodic examinations of each child during the period of his attendance.

If a child should fall ill, there should be provision in the camp for his prompt isolation, and some one with sufficient knowledge of control measures should take the situation in hand.

Should Be Protected Against Disease

The better camps will require that before the child is admitted, he must be vaccinated against smallpox and immunized against typhoid fever. It would be well if the child is also protected against diphtheria.

These, then, are some of the precautions that parents should take in enrolling their child in a summer camp. What the camp offers in the way of special recreation and education is a matter for personal preference. A good thing to do, however, before the child is entered in any camp is to have a complete physical examination made of him. He might have a weak heart that would not stand strenuous swimming, long hikes, canoe races or other athletic events of the summer camp.

Getting Rid of Superfluous Hair

EVERY individual who has what he considers superfluous hair growth attributes the growth to something he has done in the past, such as cutting, singeing or pulling out the hairs. The real truth probably is that none of these things has any effect, but the amount of hair is determined by the natural differences in the skin of persons.

One woman, for example, has long, heavy hair on her head; another has a small amount of rather short hair. This man has a heavy, bushy beard and shaggy eyebrows, while another has a scant supply. This is due to the natural differences in the structures of the skin. The persons are born that way.

A natural but extraordinary development of the hair follicles and hairs of the skin is the cause of the heavy growth of hair on the face and limbs, regarded by some persons as superfluous hair. Probably no local cause is responsible for the condition. This sounds like rank heresy to many persons, but long continued experiments of scientists have resulted in no other explanation.

The only way to remove hairs is to destroy the hair follicles. This can be done *en masse* with x-rays, but the production of permanent loss of hair in this way is likely to cause permanent damage to the skin. This method is dangerous and should not be attempted except in rare cases.

Hair follicles can also be destroyed by electrolysis. This is a tedious method, only partially successful except with skill and patience, and it can hardly be used for a great number of fine hairs.

Probably the best way to get rid of hairs is to pull them out. After they have been pulled out once, it does not require much attention to keep them pulled out. There is no reason to believe that this makes them coarser, although many persons have felt that it does.

In fact, it may be true that the constant pulling out of hairs, with the resulting injury to the follicles, may actually cause a diminution in their growth.

Shiny Nose

To the Beauty Department:—Will you kindly inform me whether there is any way of treating an excessively oily nose? M. S., Connecticut.

Answer.—An oily condition of the skin on the face is due to a hyperactivity of the oil or sebaceous glands in the skin. The nose and forehead are usually involved more than elsewhere, yet in some cases the skin over the entire face, upper part of chest and the shoulders may be excessively oily; in such cases the hair on the scalp is also quite oily, as a rule.

The condition is rather difficult to treat. All foods containing much oil or fat should be avoided as far as possible; no fat meat should be eaten, very little butter, cream or salad dressings containing oil should be included in the diet. Locally, both stimulating and soothing lotions are of value, but oily preparations should not be used. A physician should be consulted regarding the local treatment.

X-ray treatment, when given by an experienced operator, is of value in many cases.

Wanous Shampoo-Bag

To the Beauty Department:—Will you please inform me concerning the merits of "Wanous Shampoo-Bag?" G. E. M. C., Iowa.

Answer.—In 1908 a patent was issued to Josie A. Wanous for the Wanous Shampoo-Bag. In 1910 a reissue of the patent was granted to Josie A. Wanous Stuart, the patent being assigned to Daniel Erb.

The Wanous Shampoo-Bag consists essentially of a small package of herbs enclosed in a porous sack. According to the patent specifications the herbs in the bag are "equal parts of bitter apple, camomile, soap bark and lavender flowers." Undoubtedly the most important ingredient in this mixture is the soap bark (quillaja). Soap bark when macerated in water imparts to that liquid the property of frothing like soap when agitated. An infusion of soap bark is rather commonly used for washing fabrics for which soap would not be suitable.

The claim made on the trade package for the Wanous Shampoo-Bag that it is a "hair food" is without justification.

HYGEIA

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Plain Facts about Health and Disease

HEALTH NEWS OF THE MONTH

The Death of Wassermann

On March 16, Professor August Von Wassermann died in Berlin at the age of 59. Probably few physicians were so well known to the public by name as was this discoverer of a test for the disease syphilis, feared by all who know its terrible manifestations.

The organism causing syphilis was isolated by a German, named Schaudinn, in 1905. In 1906 Wassermann described a test of the blood which, in the majority of cases, shows whether or not a human being is afflicted with this disease. Once the diagnosis is made, the physician is able to treat syphilis by the use of such remedies as arsphenamin (606 or salvarsan) and mercury, and to render patients safe from infecting the persons with whom they may associate, in many cases producing a clinical cure. Negative Wassermann tests, following repeated examinations, are considered of the greatest importance in determining when the patient has reached this innocuous condition. The name of Wassermann deserves a high place among those who merit the respect of the public for their scientific accomplishments.

A Statue of "Balto"

Recently, a group of sentimental citizens of New York City determined to collect funds for the erection of a statue of the dog "Balto," whose picture appears elsewhere in this issue, in recognition of the work of the dogs in aiding the carrying of diphtheria antitoxin to Nome.

An organization in New York City called the Citizens' Medical Reference Bureau issued publicity attacking this project as a part of its campaign against scientific medicine. In this connection, the New York *Herald-Tribune* took up the defense in the following words:

> The foes of medicine calling themselves the Citizens' Medical Reference Bureau touch the extreme of nonsense in objecting to the proposed statue of the dog Balto because he made his glorious trip to Nome on a nefarious errand, carrying antitoxin to diphtheria sufferers. They seem to think that Balto is an eminent bacteriologist. The protest is only a grotesque play in the campaign to harass physicians in their winning fight against a deadly disease.
>
> The wrong-headed bureau seizes this occasion to spread the impression that diphtheria antitoxin is a failure. It practically represents Dr. William H. Park, director of the city's laboratories, as having admitted as much. Dr. Park, of course, has said no such thing. No physician in the country is more convinced of the wonderfully efficient results of antitoxin and of the value of immunization by means of toxin injections.
>
> Use is made of the statistics of Willard Parker Hospital to prove a high rate of mortality from diphtheria. The antimedical bureau stresses the 35 per cent. of mortality among children under three years old at the hospital from 1919 to 1923. It omits to mention that in the years before antitoxin was administered the rate was 80 per cent. Nor does it explain that a great many of the cases are received by the hospital in an advanced stage, when antitoxin is all but powerless. Prompt treatment is essential.
>
> Before antitoxin came into use the death rate from diphtheria in New York City was 150 per one hundred thousand of population. Thereafter, in 1898, it was reduced to 54. With some fluctuations it was reduced in succeeding years to 22 in 1919, when the immunizing vaccine became available. It declined in 1923 to the low mark of 9 per one hundred thousand. The lifesaving potency of antitoxin applied in time and the protective virtue of the preventive injection are facts abundantly proved. Let no mother or father for an instant credit the assertion of persons who hate physicians and all their works that the modern treatment of diphtheria is of questionable value. It is indeed one of the great triumphs of medicine. Were every parent instructed, one of the most dreaded diseases of childhood might ultimately be subdued.
>
> It is sorry business for any organization, however sincere, by deceptive use of figures and the garbling of statements of a public health official, to try to cast doubt where none exists on the efficacy of antitoxin and of immunization against diphtheria.

As was predicted in our columns a few months ago, the diphtheria epidemic in Nome served a useful purpose in calling the attention of the public to the control of diphtheria as one of the supreme accomplishments of medical science.

M. F.

TWINS

THERE are three kinds of twins: (1) Those arising from a single female cell that has been fertilized; (2) those that arise from two separate female cells, fertilized at the same time, and (3) various kinds of Siamese twins.

Twins that arise from a single cell are always of the same sex and are usually almost identical in appearance. Twins arising from two different female cells are rather unusual; they may be either of the same or opposite sexes. Siamese twins, who are joined together at birth, vary from those with a slight joining to those with almost a complete junction. When more serious forms of such junctions occur, the Siamese twins seldom survive.

Dr. George R. Murray, in his president's address delivered before the Manchester Medical Society in England, pointed out that out of 19,935,556 births, there were 19,468,832 single children, 226,807 twins, 2,623 triplets, 59 quadruplets and 1 quintuplet. This gives a proportion of one twin birth in every eighty-seven pregnancies. However, the number varies in different communities. Apparently the variation is 1 set of twins to 158 single births in Naples, 1 to 88 in Berlin, 1 to 85 in London, 1 to 74 in Vienna, 1 to 57 in Dublin and 1 to 93 in the United States. In round numbers, the chance would appear to be about one in a hundred that a pregnancy will result in twins.

It is generally well recognized that twins may resemble each other both mentally and physically. In some instances, twins have entered on the same type of career and have achieved the same success. They are likely to have the same type of anatomical similarities and defects. The finger prints and sole prints may be almost identical, particularly in the case of twins coming from a single female cell. On the other hand, in forty-two pairs coming from two female cells there was not such a correspondence.

Twins are likely to suffer from the same kinds of disease owing to inborn or hereditary defects and close association in life. In the pedigree of 1,000 albinos, it was found that there were twenty-nine records of twins, one or both of which were albinos. There are certain disorders of urinary secretion that are likely to develop in twins similarly. Also when diabetes appears in one of the twins, the other should be especially watched for this disorder, as it seems to depend on some inborn liability to failure of the gland known as the pancreas to perform its proper function in the handling of sugar in the body.

Mental diseases are also likely to occur in both twins, owing perhaps to some inborn mental defect. Certain forms of mania and of mental degeneration have been found to occur in twins. When one of a pair of twins becomes insane, it is most important to keep the other under observation for the development of the same type of disability.

Among other diseases that may affect both twins because of some similar predisposition, observers have mentioned asthma, migraine, diseases of the blood and the blood forming organs, and goiter. Twins seem to resemble each other not only in appearance and character, but also in the finer details of the structure of their bodies and the ways in which the functions of the body are carried on. M. F.

DANGEROUS YEARS

IT IS not true that contagious diseases, such as diphtheria, scarlet fever and measles, are most prevalent at the ages when children attend school; their greatest prevalence is to be found in the preschool age.

A recent study of diphtheria, scarlet fever, bronchopneumonia, lobar pneumonia, poliomyelitis (epidemic spinal paralysis), measles, and whooping cough cases reported to the Detroit health department shows that 57 per cent. of the children afflicted with any of these seven diseases were less than seven years old. Only 22.4 per cent. of the cases were among school children, assuming that the school child is seven (the minimum legal age of compulsory school attendance) or over. Even if one half of the five and six year olds are in school, the percentage of cases in the preschool group is still 47.4 per cent. as compared with 31.9 per cent. for those attending school.

The Detroit investigation also reveals the fact that 6 per cent. of those afflicted with the diseases mentioned are infants under one year of age. Adults represent about one fifth of all the cases, ranging from 0.6 per cent. for whooping cough to 72 per cent. for pneumonia. Scarlet fever is the disease most prevalent among school children from seven to fifteen, the total number of cases being 1,530, while the cases among preschool children number 1,156.

The preponderance of deaths in these earlier years is still more striking. Leaving out lobar pneumonia, in which the adult death rate is exceptionally high, the experience in Detroit shows that 37.7 per cent. of deaths occur in the first year of life, 31.6 per cent. between the ages of one and four, and 6.4 per cent. in chil-

dren of five and six years of age—a total of 75.7 per cent. in children of preschool age as contrasted with only 6.5 per cent. in children of school age. Communicable diseases, as it may be seen, are especially deadly in infancy and early childhood.

Children before the age of school attendance, as well as some at older ages, contract communicable diseases by playing either with school children or adults. Some of these have not themselves been sick but have been in contact with the sick and have become disease carriers.

"Many cases of disease in preschool children," says the Detroit report, "could be prevented if persons would wash their hands and faces thoroughly before playing with little children and babies, and would keep away from small children if they have been, or think they may have been, exposed to a contagious disease."

J. M. D.

THE HOSPITAL LIBRARY

HOSPITALS are apt to assemble some peculiar material in what is known as the patients' library. Here are deposited last year's best sellers and the subscription sets urged upon some philanthropic donor by the glib tongue of the book agent.

If any of the volumes are new, they have been selected with the belief that the sick man or the convalescent woman has a brain that functions only during periods of health. The inane detective story, the period sex-thriller, the novel rewritten from a movie plot, the collection of short stories culled from cheap magazines, are likely to constitute the fundamental material of the patients' library, supplemented by the tattered and coverless issues of current magazines prepared for the Babbittry. If an intelligent patient comes to the hospital, he relies for reading matter on what he may bring himself or on what some perspicacious and sympathetic friend may send him.

Now here is a suggestion. Let the library of the hospital arrange with the authorities of the local city library and with the American Library Association to supply loan collections of recent material for short periods. As to periodicals, may we modestly suggest a few subscriptions to HYGEIA. At no time are people so interested in reading about health and the prevention of disease as when they are ill or convalescing. An article on the care of the ears in the March issue of HYGEIA was given to three patients convalescing from operations for mastoiditis, and they read it with most intense interest. Once started they read most of the articles in the periodical.

If hospitals will start their patients along the proper path to healthful reading material, many of the patients will continue of their own accord.

M. F.

"NERVOUS BREAKDOWN"

WHENEVER any one begins to react unduly to his surroundings and to the persons with whom he may be compelled to live, it is customary to say that he is about to have, or is in the midst of, a "nervous breakdown."

As Dr. L. F. Barker has recently stated, a nervous breakdown may include such states of mental and nervous disturbances as are included by neurasthenia with insomnia, inability to concentrate the mind on any topic, and unusually easy fatigue; hysteria with convulsions or simulated paralysis; anxiety neurosis with restlessness, unusual sensations of palpitation of the heart and unwarranted apprehensions; or a psychasthenic state with doubts, fears, obsessions and inability to make decisions. It may include most actual forms of insanity, such as psychosis, dementia, and paranoia; and finally such actual diseases of the nervous system as hemorrhage of the brain, paresis, epidemic inflammation of the brain, or brain tumor.

The term "nervous breakdown" may, therefore, include almost any form of nervous and mental diseases. If properly limited it would involve only persons who are temporarily unequal to the demands of ordinary life. They are temporarily, or perhaps permanently in some instances, misfits in family life, in school life, or in the business world with which they deal. It remains for the physician to determine the extent to which the person is suffering from some major or minor mental disturbance, and to what extent he is merely badly adjusted to his neighbors and to his environment.

Among the causes of nervous breakdown, the physician is likely to list first any hereditary tendency to nervous and mental instability. There seems to be no doubt that some families incline more to such weaknesses than do others. Of course, from the scientific point of view, it is very difficult to allot any definite portion to heredity and to environment, for the simple reason that environmental influences may date back to the period of early infancy and even later childhood, and therefore seem to be a hereditary influence. No doubt, improper feeding of the infant and poor care during the early years of life may so weaken the general constitution as to make the child unusually susceptible to factors that affect his nervous and mental condition.

Then, too, infectious diseases of childhood, inadequate diet and unusual strain placed upon the child by overambitious parents may play a large part in undermining his mental condition. Indeed, Dr. Barker sees in the present trend of life a menace to stable minds in the future. He says:

> Overambition and the intensity of the economic and social struggle, 'burning the candle at both ends,' an insane quest of 'pleasures,' foolish attempts to put a week of normal life into twenty-four hours of feverish overactivity, the demand for sensational literature and music, for rapid transportation and for violent stimuli of all sorts—all are conducive to aggravation of the wear and tear of the nervous system.

From a discussion of the causes that have been mentioned, the methods of prevention and treatment of nervous breakdowns should be obvious. Proper attention to heredity, to the prevention of injury to the germ cells and to the infant developing before its birth, as well as proper attention to parental and prenatal hygiene and to child training will do much to lower the number of persons that will have to be treated for nervous breakdowns in the future.

As for the present, Dr. Barker says:

> A great many breakdowns, both physical and mental, could be prevented if the growing practice of resorting to the family physician, to a consultant, or to a diagnostic group for a health examination on the birthday anniversary each year were to become general. Developing disturbances could then be detected in their incipiency, a preventive or curative regimen if needed could be immediately prescribed, and in many instances a serious illness or even a tragedy might be averted.

M. F.

LIVING ON THE FAT OF THE LAND

"GIRLS! Throw Away Your Fat! Look Your Best This Summer!" Thus in large black letters has San-Gri-Na, an alleged obesity cure, appealed to the overweight and to many who are not overweight but who wish to affect the svelte figure.

Part of the San-Gri-Na advertising consists of what purports to be a letter from Madame Elaine of Paris, who is quoted as saying:

> My heart just seemed to beat with joy at the prospect of getting into one of the chic ready-made dresses at a store, size 36, which I now wear instead of a 46, which was too tight.

What a lure to the stylish stouts—the "outsize" ladies who wish to attain slimness by the short-cut route. The newspaper advertisements give the idea that to reduce weight it is unnecessary to exercise or diet, the only desideratum being the purchase of San-Gri-Na.

When the mixture has been bought, however, the purchaser finds that in addition to taking San-gri-Na she should take the juice of one lemon in a glass of warm water every morning, chew her food very thoroughly, eat only two or three light meals a day, sleep not more than six or seven hours, do a "reasonable amount of walking," take no liquid with meals, avoid starches, fats and candy! Of course, if one followed these directions San-Gri-Na could be thrown down the sink and the results would be just as satisfactory.

For the purpose of learning what was in this obesity cure the chemical laboratory of the American Medical Association was asked to analyze the marvel. The chemists reported that San-Gri-Na tablets were, essentially, nothing more wonderful than a mixture of sulphur and cream of tartar with a small quantity of the common laxative phenolphthalein.

One may ask: "What is there about San-Gri-Na tablets to bring about reduction?" The answer is: "Nothing; they won't reduce." But there are always optimistic overweights who will bite voraciously on bait of this kind. This ever-hopeful army of easy marks makes the obesity cure game one of the most profitable branches of quackery.

A. J. C.

SMALLPOX IS A DISGRACE

RECENTLY the *Saturday Evening Post* published an account by Dr. W. W. Keen, of "Personal Experience in Three Epidemics of Smallpox." Dr. Keen cited his experiences in epidemics that occurred during the Civil War; gave the main facts of the Montreal epidemic, in which 3,164 people died of smallpox in ten months in 1885, and submitted figures from Germany and from the Philippine Islands. He concluded with the statement that "smallpox in any civilized community is a disgrace."

The case rate of smallpox in any community, as Dr. Keen pointed out in an article in *The Survey*, is a direct index of the degree to which universal vaccination is preached and practiced in that community. Massachusetts reported a case rate of 0.1 per 100,000 population during 1923, whereas Montana had a rate of 110. This difference is due without doubt to the manner in which vaccination is preached and practiced in these two communities.

Proper education of the uninformed, such as this work of Dr. Keen's, will aid us to reach sooner that day when all of the diseases that science has shown to be preventable are completely eliminated from our communities.

M. F.

Two Little Healthlanders

BY JOHN T. LEMOS

Pleasant Temper and Merry Manners will help you in your work and play, if you'll let them. If you have a pleasant temper and good manners everyone will like to have you around. Just try it and see!

Here is a picture
Of an ELF
Whom you have
Often seen yourself.

He just arrived
From Healthy Town
To spread some
Happiness around.

His name is
PLEASANT TEMPER and
I'm sure you'd like
To shake his hand.

A FAIRY gay
Comes from there, too,
She wears a gown of
Gold and blue.

And people like
To have her come
And visit them when
They are home.

Her name is
MERRY MANNERS, and
She's popular
In Healthy Land.

A bird just whispered
In my ear
A few wise words
You'd like to hear.

He said, "Be sure to
Make yourself
Good friends with Merry
And the Elf.

And try to have
These two around,
When you go off
To Healthy Town.

Health House or Unhealth House?

BOYS and girls, do you remember the story of the Health House and the Unhealth House that was published in the February HYGEIA? Up in Mellen, Wis., a teacher thought it would be a fine plan to have one of her classes build two houses like the ones the dentists saw at their meeting down in Texas.

So the class set to work and built a Health House and an Unhealth House very much like the ones pictured on this page three months ago. When they had finished the houses, each one in the class had to write a story about them.

Rose Windt, who is 13 years old, wrote the following story, which she called "Up Hill and Down." I'm sure all the children who heard about the two houses will want to read Rose's story:

UP HILL AND DOWN

By Rose Windt

ONE day as I was walking down the street on my way to school, I turned the corner and came face to face with my two friends, Jeanne and Doris.

They evidently had been quarreling for their countenances looked troubled and unhappy. I wanted to ask them if I could be of any help, but then I thought it would be impolite to do so.

I had always had a greater friendship for Jeanne than Doris in one way. This was because Jeanne lived in the healthful house. This little neat home had a graham-cracker-shingled roof, toast windows, oatmeal stucco walls, a bottle of milk as the chimney, two bottles of milk as pillars and raisin bread for the walk. Her home was known as the little health home in the village. It was so very attractive with its neat yard around it and the vegetables growing in the garden. Everything was so clean and neat that the people when they spoke of the cleanliness of something referred to this cottage. It was a home of welcome and happiness.

Doris lived in a little brown house; in comparison with other houses it was also attractive, but it never could compare with the health house. This house was painted with chocolate, with a roof of fried potatoes, doughnut pillars and a small yard around it that was so very untidy.

When you have pictured these houses which would you want to live in? I would prefer the little white cottage commonly known as the healthful house.

I watched these two girls as they grew up into girlhood. As I was their friend I could keep in close contact with what they did. I did not look at them as a detective would upon a criminal but as a very dear friend.

Jeanne and Doris were very close friends, although they were different in all ways. When they had decided on a party or some entertainment there was sure to be a quarrel following it. The reason for this was that they did not eat the same food or have the same ideas about anything.

Jeanne's family was very careful to eat all healthful food. In order that their daughter might bear it in mind, they planned a house that represented the foods that they would eat. This house was the one I described before.

Doris' parents did nothing toward keeping her health. They lived in the little cottage that represented everything that they liked to eat. It did not matter to them if it would be healthful or not.

When the two girls were ten years of age, I started to take particular notice of their two different lives. They were in the same grade in the village schoolhouse although Jeanne always had her lessons prepared while Doris seemed "just to get through" every subject, as she called it. Doris often had to stay home because of her health because she did not go to consult the doctor as she should have done. The two girls were very attractive, but each day Doris' beauty was fading with her health.

At the age of eighteen the two girls were ready to enter college. A week before they were to go to college Doris became ill. Then Jeanne had to go to college without her friend.

Each day Doris' health was failing rapidly. One morning Jeanne received a long, sad letter from Doris. She told her that she was in the hospital now and the doctor said she had but a short time to live.

Oh! how she wished she would have only lived in the little health house, keeping all the rules of health. If she would have only followed Jeanne's advice about health. But now it was too late.

Doris' mother and father had died. The unhealthful house crumpled to the ground soon afterward. Now Doris was the only one left of the unhealthful home of hers and she was almost gone too.

Doris loved to write poetry. When she died she left these lines:

If only I would have listened to Jeanne's advice,
  Jeanne Brown, who was so kind and nice.
I would not be going so far away,
  From my friends and the world today.
My home should have been in the little healthful
    house on the hill,
Instead of in the unhealthful home of my own
    will.
But now it is too late,
  I have met my terrible fate.
My home has crumpled away,
  Like my body is today.

This verse was kept by Jeanne Brown, who was quite lonely now.

I have seen the lives of these two interesting girls with different opinions. Jeanne Brown, who lived in the little house of health, had won the prize of life over Doris Hamilton, who had lived in the unhealthful house.

They were both climbing the mountain of life, but Jeanne Brown succeeded because she had lived up to all rules of health and the little health house in the village by the seashore.

HEALTH NEWS AND VIEWS

A PLEDGE TO HEALTH

U. S. Dept. of Agriculture

Either milk or orange juice, says the bureau of home economics of the U. S. Department of Agriculture, is excellent for the growing child's between-meal lunch.

NATIONAL NEGRO HEALTH WEEK

The week of April 5-11 was observed as Negro Health Week, during which special steps were taken to bring to the attention of the people of the colored race the importance of its observance was stressed. The text mote health.

The concentration of attention of large groups for a few days on an important human interest like health is an effective means of stimulating activities looking to health betterment and there is need of doing this in negro communities. The mortality of the colored race in the United States is still notably higher than of the white race.

From Sunday to Saturday the several days were designated as "Sermon and Lecture Day," "Hygiene," "Swat the Fly," "Tuberculosis," "Children's Health," "Church Sanitation," and "General Clean-up" day. Lectures, talks, health slides, films and exhibits, health stories, plays and parades were the principal methods used, concluding with a widespread participation of school teachers and pupils, church members and home keepers in sanitary and clean-up activities.

An all year round printed program was distributed to every individual who could be reached and the importance of its observance was stressed. The text of this program was as follows:

1. Ventilate every room you occupy.
2. Wear loose, porous clothing suited to season, weather and occupation.
3. If you are an indoor worker, be sure to get recreation out doors.
4. Sleep in fresh air always; in the open if you can.
5. Hold a handkerchief before your mouth and nose when you cough or sneeze and insist that others do so.
6. Always wash your hands before eating.
7. Do not overeat. This applies especially to meats and eggs.
8. Eat freely of fruit and of leafy and coarse vegetables.
9. Eat slowly; chew thoroughly.
10. Drink six to eight glasses of water daily.
11. Evacuate thoroughly, regularly.
12. Stand, sit and walk erect.
13. Keep the teeth and gums clean.
14. Work, play, rest and sleep in moderation.
15. Keep serene. Worry is the foe of health. Cultivate the companionship of your fellow men.
16. Avoid self-drugging. Beware of the patent medicine faker.
17. Have your doctor examine you carefully once a year. Also consult your dentist once or twice a year.

DISTRICT OF COLUMBIA HAS DISEASE CONTROL BILL

After five years of legislative history the venereal disease control bill for the District of Columbia has been signed by the President. In spite of the fact that the bill has been on the verge of enactment at several times in the past, it did not become law until the closing days of the last session of the Sixty-Eighth Congress, although every state in the Union has had some sort of a venereal disease control measure since 1921.

The fact that sentiment for the Gilbert bill persisted for so long a time in the face of repeated legislative delays goes to show that the need for such a measure was keenly felt by residents of the District.

Under the provisions of the law, the chief officer of every hospital, dispensary, sanitarium and penal institution must report to the health department cases of venereal disease as soon as they are discovered. The judges of the juvenile and criminal courts must report any persons appearing before them who are suspected of being venereally infected. Private physicians are required to make a similar report within ten days after a case has come under their control.

The District law provides that these reports be kept confidential by the health officer and his agents.

USE OF DIABETIC SLIDE RULE AND SIMILAR DEVICES

To assist victims of diabetes in calculating the content and caloric values of the diet, a number of charts and mechanical devices have been put out from time to time.

If these are used under careful instructions from the physician who is familiar with the condition of the patient, they may be very helpful in assisting him to plan his food allowance and composition from day to day. They ought, however, to be used only when accompanied by such instructions, says Dr. Woodyatt.

Fighting Diphtheria at Nome

HERE is the little hospital at Nome in which patients suffering from diphtheria were quartered during the epidemic that aroused the world. When diphtheria antitoxin became available, the epidemic was quickly controlled.

And here is the dog team driven by the famous Alaskan "musher," Kasson. Recently when Kasson came to Los Angeles with Balto, the "lead dog" of the famous team, the mayor of Los Angeles presented Balto with the "bones" of the city. He appreciated them more than the notables usually appreciate the legendary keys. The world will always remember how antitoxin was carried to Nome, not only because of the heroism of the feat, but also because it was proof of the way in which scientific medicine aids in time of stress.

International

International

BERLIN OPENS FIRST AID BOOTH

The Berlin safety service, a department of the German capital's police, has instituted a novel first aid station for the convenience and protection of the wayfarer who meets with injury. The Berlin first aid booth is the first of its kind in the world. It provides equipment for the first aid treatment of any injury until the arrival of an ambulance. An officer may be seen pulling out a portable stretcher.

A COW WITH A WOODEN LEG

If men can walk with wooden legs, why can't cows, reasoned the owner of Bossy, an Ohio cow whose right foreleg had to be amputated because of an infection. The cow's owner, a veterinary surgeon of Lima, Ohio, whittled out a wooden leg for the animal and applied it to the stub. The cow soon learned to make use of the artificial limb and she now hobbles about at a fair speed.

DENTIST'S OFFICE ON WHEELS

Country school children in New Jersey may now keep their teeth in good condition. The New Jersey board of health has recently established a dental ambulance that visits country districts where heretofore dental treatment has been difficult to obtain.

International

COOKED OUTDOORS

No food tastes quite so appetizing as that prepared outdoors over an open fire. Spring Saturdays find the boy scouts on the hike, and they usually need no urging to take a second bowl of soup.

Underwood & Underwood

GIRLS STILL SPIN

Our grandmothers did their spinning at a wheel indoors, but the modern girl prefers a top on the sidewalk. The girls of a Chicago playground are engaged in a top spinning contest; they are said to be just as adept in the sport as their brothers.

Pacific & Atlantic

"RING AROUND A ROSIE"

Spring has come in Holland, too, and has entered the blood of these little Dutch girls in their quaint peasant costumes. With a view such as this spread out before them, no wonder they feel like dancing for joy.

Ewing Galloway

DON'T USE GASOLINE AS FLOOR WASH

Gross misuse of gasoline is an old, old story to fire preventionists; yet not often is there exhibited such complete disregard of the known hazards of this fluid as is disclosed in a report which recently reached the National Board of Fire Underwriters from a small Texas city.

In a power station there, it is alleged, the concrete floors are scrubbed nightly with ordinary brushes and mops soaked in gasoline, about ten quarts of the volatile liquid, in open cans, being used for this work every twenty-four hours.

Not the slightest necessity exists, of course, for employing gasoline to remove grease and oil. A caustic soda solution, together with a good grade of soap, will serve the same end and do it with entire safety. If a small quantity of kerosene be added to this solution it will eradicate the most tenacious dirt and stains.

Certainly gasoline never should be used for such a purpose as floor cleaning.

"HEAVY OCCUPATIONS" FOR WOMEN

A certain heart disease clinic has classified the "hard workers" among its patients. It states that 26 per cent. of the men are doing "heavy work," and 58 per cent. of the women.

Among the heavy occupations are listed longshore work, shipbuilding, blacksmithing and carpentry for men, and housework combined with washing or pregnancy, and janitress work for women.

The report of this clinic states that few of the women are doing hard work from choice. The greatest number of them are in the third, fourth and fifth decades, when most of them are married. Most women do heavy work as heads of large families. It is nearly impossible for them to give this up and it is difficult to make the work easier. They frequently go on until they drop. Men, on the other hand, when they find difficulty in doing hard work, either look for and obtain lighter work, or simply give up and send their wives to work, says the report.

What the housewife with heart disease needs is education in the fact that she is doing better by her family by easing up on the work than by doing more work. But it is hard for her to give up, especially since her labors are never finished.

SOFTENING THE CITY WATER SUPPLY

It would cost the average family in Lansing, Mich., only $2 more a year to have soft water for use in their homes instead of hard water.

So says E. F. Eldridge of the Michigan department of health laboratories writing in the health bulletin of that state on "Hard Water, an Unnecessary Evil." The figures for Lansing probably approximate the cost for other cities.

Besides being disagreeable, hard water is one of the most expensive of household commodities, Mr. Eldridge points out. The extra soap used by each family in Lansing to soften the hard water, before the cleansing action of the soap takes effect, amounts to $8.96 each year.

The majority of homes do not use hard water for washing purposes but have installed soft water plumbing and cisterns. In this way, soft rain water is used to do away with the difficulties encountered in the use of hard water. The annual cost per family of five for cistern water is $14.40.

The third source of expense of hard water is that of repairs on plumbing necessitated by the formation of scale in boilers, heating coils and other plumbing fixtures. Estimates by plumbers indicate that this amount would be between $4 and $5 a year per household.

Deducting these costs from the comparative costs of municipal softening of hard water, the Michigan health authorities find that the extra cost per family would be less than $2 per year over and above the present water bill.

GREAT BRITAIN TO MAKE "SUMMER TIME" PERMANENT

Great Britain will probably make daylight saving time a permanent arrangement during the summer months. A bill providing for what is known in that country as "summer time" has been presented to Parliament and has no opposition, except from a group of agriculturists.

For the last eight years, Great Britain has set its clocks one hour ahead each April and has moved them back in the autumn. If the present bill is passed, such an arrangement will become permanent, instead of being taken up each year.

"Summer time" begins on the Sunday following the first Saturday in April and ends on the Sunday following the first Saturday in October.

English physicians were among the strongest advocates of the bill, on the grounds that it gives workers more time to be in the sunlight and open air. At London hospitals, it was pointed out, the transformation of wrecks of humanity into reasonably healthy persons is often accomplished as the mere result of sitting for half an hour in front of a very feeble imitation of sunlight which comes from a carbon arc lamp. More time in the fresh air and sunlight will bring about a healthier nation, it is believed.

COUNTRY VS. CITY DEATH RATES

The rural boy baby may expect to live seven years and nine months longer than his city cousin. The country girl has a life expectancy of six more years than the city girl. But many important diseases seem to affect country people more seriously than city folk, says a recent statistical bulletin of the Metropolitan Life Insurance Company.

More country babies die of whooping cough, and the death rate for this disease in country districts grows higher and higher each year.

Although the city dweller is more apt to have most kinds of cancer than the farmer, this is not the case with skin cancer. The rural death rate in skin cancer is very high.

General tuberculosis causes a high percentage of deaths among country residents, although tuberculous disease of the lungs and other parts of the body is more serious among city dwellers.

Smallpox deaths are much more frequent in small towns and country districts, because vaccination is not so generally practiced as in cities where boards of health cooperate with the state in arousing the population to the dangers of smallpox and the protection which vaccination affords.

Influenza takes a great toll from country people. Angina pectoris, bladder complaints, gangrene and intestinal parasites take a heavier toll from country districts.

Hanging is the favorite method of suicide in the country, as opposed to taking poison, inhaling gas, shooting, and jumping from high places, which lead in the cities.

Among accidental deaths, food poisonings, deaths in burning buildings, drownings, gun shot wounds, mining and quarry accidents, railroad accidents, deaths in landslides, injuries by animals, fatalities due to excessive cold and lightning, all are more numerous in the country.

BOOK REVIEWS

THREE PROBLEM CHILDREN. Narratives from the case records of a child guidance clinic, with a discussion by Henry C. Morrison, Professor of Education, University of Chicago. Cloth. Pp. 146. Joint Committee on Methods of Preventing Delinquency, New York. 1924.

NO SUBJECT is of greater human interest and importance than the training of children. On the results of this work depends the future of the race. Our system of child training has grown up largely from the results of experience, those methods that end in failure being discarded gradually.

Today science has begun to take an interest in studying the child and his needs, in trying to find out the whys and wherefores of the obvious failures, and even in seeing whether it is not possible, by taking thought, to improve more rapidly and rationally in the methods of training without waiting for the demonstration by time that older methods are either relatively or absolutely inefficient. Much of our knowledge concerning behavior has come from the study of children who are behaving badly, just as our knowledge of health has come largely from a study of disease.

It has become somewhat customary to speak of children who show tendencies to be "naughty" or difficult to manage as "problem" children, a somewhat unfortunate name, as every child is really a problem child. Even if a child learns to meet the conditions of the world in which he lives without coming into actual conflict with social rules and regulations, he may still be only relatively successful. Had he learned to face his problems differently he might possibly have accomplished more for society and have found greater personal happiness and satisfaction; none of us is as successful as he could be.

But the term "problem child" used in the title of this book has probably come to stay and must be understood as applying to cases in which more or less obvious difficulties in meeting the conditions of school and home have been observed. Many people seem to accept blindly the view (rather a comfortable one because it relieves from responsibility and the need to do something to bring about correction) that behavior problems in childhood or adult life are the outcome of something innate, something wicked or bad.

A real study of such children, however, often reveals influences and difficulties quite unsuspected or utterly ignored, which not only explain the faulty behavior of the child but are quite open to remedy and correction, though perhaps only after tedious and persistent effort.

In the book under review are described in detail the case histories of three such children, with instructive comments by Dr. Harry C. Morrison of the Chicago University, a noted educator. The cases are of every day occurrence and the details given will throw light on the methods of study implied under the name psychiatric. They will convince any one that there is nothing mysterious in the findings—they seem almost commonplace and obvious in spite of the fact that they have been neglected—and that no parent need be afraid of the implications or suggestions that his child needs such an examination. It would be well if every child could be so studied.

The first case, that of a girl of 12 years, presents a story of diffidence, timidity and great unhappiness with failure in school work; the child was "apathetic, unsocial, sullen, she seemed to have retired into an inner world of her own."

In the second case, that of a boy of 13, who had been bright in school in the earlier grades, something had happened to cause him to become untrustworthy and truant, neglectful of his work and to develop certain bad sex habits.

In the third case, a lad of 13 had been well liked, energetic and fond of sports but began to show traits of behavior of serious nature (judged by the social consequences) that had brought him before the juvenile court. He had participated in various larcenies and group burglaries and become a "bad lot" generally.

These records have been selected, not with the object of showing what results can be accomplished, though the outcomes have been worth while, but for the purpose of giving a popular, simple exposition of the nature of behavior problems, the factors that enter into them and the methods adopted for their study. The accounts are well written in nontechnical language and will be found of absorbing interest. Every parent will learn much from their perusal. H. D. S.

FOOTBALL: HOW TO PLAY IT AND HOW TO UNDERSTAND IT. By J. W. Wilce, M.D., Head Football Coach at the Ohio State University. Cloth. Price, $2. Pp. 242, with photographs and diagrams. Charles Scribner's Sons, New York. 1923.

"THE young player," says Wilce, "who has seen a man with the ball run straight at him in the open field, who has gritted his teeth and resolved to tackle him and then has devoted his whole strength and energy into tackling and holding him, has gone through an experience which is extremely valuable."

This book, which is intended to help boys and young men who are trying for the football team, explains many things that it is necessary for them to know. With its aid, two boys could learn a lot of football.

It tells how to block an opponent from stopping the player who is carrying the ball; how to tackle; how to handle the ball; how to kick it; how to throw forward passes and how to catch them. It gives the qualifications of the various players and tells what they do on offense and defense. It tells how to practice and how to train. Offensive plays and the principles of defense are described.

A section is devoted to diagrams of winning plays, including the pass built around Muller of the University of California, and the plays that made Workman and Stinchcomb, in their day, as famous as the "four horsemen" of Notre Dame.

Dr. Wilce finds that winter and spring practice have their place. The player who aims to excel in football will engage in wrestling, boxing and basketball. He will get in condition by hiking, swimming and playing golf rapidly. Summer work, if not too hard, is desirable. The heart and lungs may be trained by means of tennis or easy running; but one should take care to "recreate" and not "wreck-reate." F. K. B.

QUESTIONS AND ANSWERS

If you have a question relating to health, write to "Questions and Answers," HYGEIA, enclosing a two-cent stamp. If the question is of general interest, the answer will be published; otherwise it will be sent by mail. Questions are submitted to recognized authorities in the several branches of medicine and answers framed by them. The names of correspondents will not be published. Diagnoses in individual cases will not be attempted nor treatment prescribed. Answers to questions relating to beauty will be found in the "Healthful Beauty" department of this magazine.

Infected Teeth

To the Editor:—An x-ray film shows that eight of my teeth that have been filled are infected. Should they be extracted? If so, what could be done to replace them? The incisors are all sound. Would you recommend a bridge, if it were possible to make one? C. C. S., Michigan.

Answer.—Only a competent dentist or physician who has examined your teeth and health can answer your question as to whether teeth that are infected can be cured without extraction. In general, we may say that, undoubtedly, one of the most important discoveries of recent years is that infection of the teeth may be the cause of constitutional symptoms, such as inflammation of the joints, inflammation of the kidneys and disturbances of the nervous system and other parts of the body.

On the other hand, it should not be thought that because one has infected teeth these conditions always follow, and in the enthusiasm of this new discovery it is probable that a great many teeth have been extracted unnecessarily. The question, therefore, is a rather complex one.

The dentist must first decide whether the teeth are infected and, if so, if that infection can be corrected without extraction. If they cannot, he must decide what teeth should be extracted. The physician's problem is to determine whether the person has any constitutional disorders; if so, whether they are due to infection in some part of the body, and whether infected teeth are the probable source of that infection.

It will be obvious to you that no one can give intelligent advice on such a problem as this in the absence of a personal examination. As to what should be done after the teeth are extracted, and whether one should wear a bridge or artificial teeth, these are questions which only the dentist can decide.

Vitamins

To the Editor:—Will you please inform me what vitamins A, B and C are? Are they certain organic substances, or a peculiar mineral substance found in many vegetables, or are they the result of a definite chemical reaction that takes place in some vegetable, as well as animal products? Are vitamins of such a nature that they give definite reaction to chemical tests? If so, what is the method by which their presence may be detected and classified? One article said that in milling wheat the germ was rolled and the vitamin was destroyed. Whole wheat flour, on the other hand, contains vitamins and it may have been ground at the same roller mill. I am anxious to get some information on this subject and, if possible, would like to try a few tests for my own satisfaction. C. H. W., South Carolina.

Answer.—The true composition of vitamins is not as yet definitely established, but all indications are that they are substances of organic nature. We do not know enough about these substances to detect them by purely chemical methods. To be sure, we do extract them and make partial separations by chemical methods, but their final detection always is dependent on the response of certain animals or organisms to the presence and absence of these substances in the food.

Under fat soluble vitamin A we include two substances that possess certain curative properties found in fat soluble material, such as the fat in butter, egg oil, cod liver oil, many other fats and also in many green vegetables. The one is the growth stimulant necessary for the growth of young animals and also a preventive of the eye disease called xerophthalmia. The other substance, which is present particularly in cod liver oil, is the specific vitamin that prevents rickets.

These substances are not true fat. They cannot be saponified, that is, be made to combine with an alkali to form a soap. The first mentioned vitamin is easily destroyed by oxidation and by hydrogenation, that is, by causing it to combine with oxygen or with water. It appears to yield a blue violet color when dissolved in petroleum ether and treated with concentrated sulphuric acid. The second substance, that is, the antirachitic vitamin, also is subject to destruction by oxidation, but it appears to resist hydrogenation.

Under vitamin B, or water soluble B, we refer to the substances that prevent the development of beriberi or polyneuritis (inflammation of nerves) or that stimulate growth in rats. These are found in milk, wheat germ, rice polishings, yeast and many vegetables. Whole wheat flour contains these substances because the entire wheat kernel, germ and all, is ground together, but in the milling of the white flour the bran and embryo or germ are removed mechanically. These substances are not soluble in fat but are soluble in water and in alcohol. They can be extracted from such solutions by shaking with Fuller's earth. The antiberiberi or antineuritic fraction can be precipitated with picric acid. These properties and others indicate that these substances are basic substances, that is, substances that combine with acids to form salts. The antineuritic vitamin is much more easily destroyed by higher temperatures, especially in alkaline solution, than the water soluble growth stimulant.

Vitamin C is the substance that prevents scurvy. It is found in many fruits and vegetables. Lemons, oranges, limes and tomatoes are especially rich in vitamin C. This substance is soluble in water and very easily destroyed by boiling in alkaline or neutral aqueous solutions. In an acid medium it is very much more resistant to the higher temperature. It is of interest to note that the acid fruits and tomatoes, which are also distinctly acid, can be sterilized for canning and still retain considerable of the vitamin C activity.

Vitamin D is another fraction of what was at one time called water soluble B. This substance is sometimes called bios. It is particularly widely distributed in yeast, vegetables and tissues. It possesses a marked power of stimulating yeast to grow. It also may be extracted from water solutions by shaking with Fuller's earth, but it is very much more resistant to the action of water and alkalies at high temperature than the antineuritic or growth-stimulating fractions of water soluble B. Bios appears to be a relatively simple

crystalline substance as shown by its composition and molecular weight. Its exact chemical nature is not yet known.

Multiple Sclerosis

To the Editor:—I would appreciate it if you could give me some information on the spinal disorder, multiple sclerosis. Is it hereditary? How is it acquired? Is there some other very similar term that could have been confused with it? What is indicated by a series of cracking sounds from the spine when the body is forcibly twisted at the hips? Can this be remedied? S. C., Maryland.

Answer.—Multiple sclerosis, also known as insular sclerosis, is a chronic disease, associated with patches of hardening in the spinal cord and brain.

Little is known of the cause of this disease. Some of the victims give a history of infectious disease, poison by one of the metals, or of injury, but there is no established relationship between these things and this disease.

Most of these cases occur in early adult life. The disease causes a variety of symptoms and is slowly progressive. There is no cure, though certain drugs will sometimes relieve certain symptoms.

The cracking sound from the spine when the body is twisted at the hips may be due to a chronic inflammation of the joints between the vertebrae, or to some anatomical peculiarity of the individual. It is not possible to make a positive statement without a personal examination.

Tapeworms

To the Editor:—I would like information about the parasite known as tapeworm. Is it caused by faulty diet? How long does it live? Does it have larvae, lay eggs and propagate? Is tapeworm serious and is it attended by any complications? What is the remedy? P. J. S., North Dakota.

Answer.—There are several kinds of tapeworms, popularly known as the pork tapeworm, beef tapeworm, fish tapeworm, and others. All of them afflict man because he eats meat that is infested with the larvae of one or the other of these worms. The only fault in diet is the failure to cook infested pork, beef, or other food sufficiently to kill these larvae. The larvae hatch in the intestines of the human being and attach themselves to the intestinal wall, grow there, and segments appear from time to time in the stools.

Most of the common tapeworms are not serious in their effects on the system; indeed, many persons go for years infested with such worms without being aware of the fact.

The remedy consists in giving a drug (usually after the bowels have been thoroughly emptied) which will kill the worms. This should be prescribed by a physician.

Floating Spots Before the Eyes

To the Editor:—I am 27 years old and for two years have been suffering with "floating spots" before my vision. These spots are dark in color, much resembling soot from a chimney. They are present when my eyes are closed, although not nearly so annoying. My eyes have been examined by several specialists and I have been wearing glasses for about two years although this condition has not improved. Could you please tell me what causes this trouble and advise me what to do?

G. R., Wisconsin.

Answer.—Spots such as are referred to are frequently seen by the normal eye, and are more noticeable when the eye is tired by excessive use or by attempting to overcome the strain from uncorrected errors of refraction, such as far sight (hyperopia) and astigmatism.

They are seen more distinctly when the eye is required to look at a bright surface, such as a white page, a bright sky or the illuminated field of a microscope, and hence are frequently observed by students, draughtsman, microscopists and others to whom they may be especially annoying. Such harmless spots before the eye are caused by the shadow of very small embryonic remains in the jelly of the eye (vitreous humor) falling upon the sensitive retina which then perceives them as faint floating objects against a bright field.

It is important for the person who sees such floating spots in his field of vision to make sure that they are of the harmless variety, and for this he should consult a competent physician, preferably one who gives his attention exclusively to diseases of the eye.

Frequently spots appear that are the result of disease of some of the lining coats of the eyeball and these can be detected by the expert by careful examination of the interior of the eye with the ophthalmoscope.

If it is found that there is no disease present and no opacities are visible in the humors of the eye with the opthalmoscope, it may be assumed that the spots are of the harmless variety. In such an event, for his own comfort one must strive to ignore them as much as possible.

Nervous Trouble

To the Editor:—I have been married for ten years to my second husband. Two years ago, he began to fly into fits of rage, after which he would weep for hours, imagine himself abused and mistreated by every one. These spells would come on once a month and more often, until last summer he was a wreck. He had to give up his business, which was dairying, and has rested since. His mental trouble has not improved and his doctor thinks it never will. When he gets these spells he accuses me of infidelity. He seems jealous of two older children by a former marriage and does not want me to be out of his sight. His doctor says he is unbalanced mentally but is not bad enough to send to an asylum. I cannot put him in a sanitarium as the costs are too high, so I am at my wits' end. He has never been examined by a mental specialist so far, and his doctor does not know why his mind is disordered in this way. Could this be due to a heavy plank falling on his head seven years ago? It caused a scalp wound and he had sixteen stitches put in. There are times when I do not feel safe with him. Would it be best to have him examined by a mental specialist? Between spells he seems to be himself, but I can never tell just when he will get another one. He has told me himself, that sometimes his mind is a blank and he can't fight the blues off. Is it safe to live with a man like that? My husband does not drink at present, but smokes too many cigarets; when he has these spells he smokes almost all the time. He used to drink a great deal, when young. His weight is 135 pounds, height about five feet six. He is of Irish descent. His father died from brain hemorrhage, his mother and one brother from tuberculosis. His disposition is extremely self-centered; he always thinks he is the wise man, and does not seem to care to be friendly with any one. I am of Polish descent, born here, and all the things I do he seems to think are wrong. I love to talk Polish and mingle with other nationalities; he calls them foreign nuisances. I will be thankful for any advice you may send me.

G. A. W., Arizona.

Answer.—The determination of the nature and, if possible, the cause of a sickness at the earliest possible moment is always important. This is especially true in cases of sickness of the mind. Not only may the chances for recovery of the person be sacrificed if this is not done, but serious consequences that could have been foreseen and prevented may also follow

failure to take the proper steps to protect the patient and those around him. These consequences include injuries to the patient himself, or to others, as well as loss of property or reputation.

In a general way it may be said that false beliefs concerning the fidelity of a wife or husband, especially when combined with outbursts of jealous rage in which the patient does not fully realize what he is doing, should always lead to serious consideration of possible dangers.

The facts detailed in the letter of inquiry are not sufficient to justify any conclusion as to the nature of the illness, or as to the kind of behavior that is to be expected. All that can be advised here is that the physician be asked to arrange for a consultation with a physician who has had a large experience with mental diseases.

It is highly improbable that the illness has been caused by an injury that gave rise to no symptoms for several years after it happened. But this is a question that needs expert study before it can be answered categorically.

Gray Hair

To the Editor:—1. I am 50 years old. For 20 years my hair has been turning gray and, while in good condition, it is still part black and part gray. Is there any way of hastening the graying process? I do not like dyed hair, but would like to have it all gray or white. 2. Also please tell me if mutton tallow, or a cold cream with a mutton tallow base, is injurious to the skin; will it start a growth of hair? A. M. F., Pennsylvania.

Answer.—1. There is no known method of hastening the development of gray hair.

2. Mutton tallow or cold cream is not injurious to the skin, as a rule, although it is not advisable to use more than enough to keep the skin soft and pliable, as excess oil probably aids the formation of blackheads. Several carefully conducted experiments would seem to indicate that there is no basis for the belief that the use of greasy preparations can induce growth of hair.

Boils

To the Editor:—Please let me know the causes and cure of boils. My son has had them for a year and a half. He has taken serum treatments and blood treatments with no result. I had a cousin who had boils for two years but has lost the prescriptions that cured him, and the doctor who prescribed for him is now dead. One of the remedies was a dry powder to dust on the boils. W. F. W., Oregon.

Answer.—It is not possible to prescribe intelligently for boils without an examination of the person afflicted and a very thorough knowledge of his history. Oftentimes these boils are very persistent and continue to appear for a long time in one spot or another and then within a short time they disappear and do not return.

X-rays are often useful in the treatment of this condition, but such cases can be successfully handled only by a competent physician after a thorough examination.

Removing Scars

To the Editor:—Will you please tell me if there is any way of removing scars from the abdomen caused by childbirth? What can a prospective mother do to prevent these marks? M. E. W., Missouri.

Answer.—The prevention of undue scarring lies in avoiding the unduly large child, frequent child bearing and a small pelvis. (The latter is determined in the infancy of the prospective mother.) The unduly large child is partly due to physique of the father and partly to the amount of starchy food eaten by the mother and also the amount of exercise done with her abdominal muscles.

The mother may use some oily preparation for massaging the abdomen during pregnancy; this slightly diminishes the amount of scarring. Wearing of a properly fitted girdle minimizes the amount of scarring.

There is no way of removing the scars following pregnancy, but the reddened area changes to a silvery color after some time, thereby rendering the scar less conspicuous.

Syphilis

To the Editor:—About seven years ago, while I was in the Army, I contracted syphilis. I was treated there and pronounced cured. I had never given it any other thought, only that I was cured. I am engaged now to be married in June and just to satisfy myself I had a Wassermann test made about a month ago, which showed a plus 4. I must admit this was a great shock to me, for I have never had a sign (if so, I did not know it) or a sick day since I left the hospital. I have now taken five doses of 606 and something else, and have another to take. Now what I want to know is, is it safe for me to marry? Would there be any danger of giving this to my wife? I have just read a book by Kerscher Winslow of the Seattle City Hospital and King County Hospital, Washington, called "The Prevention of Disease in the Individual." I notice it is contributed to by such men as Charles H. Mayo, Joseph Colt Bloodgood, Winfield Scott Hall and several other medical men. The author says that if a man has been thoroughly treated, and has had no symptoms for two years, he may marry from three to five years after the onset of syphilis. The Wassermann test is unimportant in this connection after five years, for of a large number of men having healthy children five years after the beginning of syphilis, 50 per cent. showed a positive Wassermann test. Within the first three years a positive Wassermann test should mean postponement of marriage. So that five years after the beginning of syphilis, in a man who has been well treated medically, and free from symptoms for two years, marriage may be sanctioned despite the existence of a positive Wassermann test. Now, can you agree with these statements? And could I have symptoms and not know it? R. A. B., Missouri.

Answer.—You have learned, as have many others, that negative Wassermanns do not prove a "cure," but rather a high degree of immunity to the spirochete of syphilis. This immunity may be transient, as in your case.

Just as immunity against smallpox, from without, should be renewed by vaccination every few years, so immunity against syphilis, from within, should be renewed by treatment every few years without waiting for proof that the germs are again active.

Such immunity you can doubtless renew by intelligent treatment, without which you are not justified in marrying.

Dandruff and Falling Hair

To the Editor:—Is an erythema dose of x-rays beneficial for dandruff and falling hair? A. J. M., West Virginia.

Answer.—Mackee's system of dosage has been adopted by most skin specialists as their standard in measuring the amount of x-rays. The amount of x-rays necessary to produce an erythema, or redness of the skin, varies in different individuals. Since the minimum dose, about one unit, is the amount of rays that will make the hair fall, it is very evident that the rays should not be used on the scalp; in some cases twice the minimum dose is required to produce an erythema and if such a dose were given to the scalp, it would

not only produce loss of hair, but this loss of hair or baldness might be permanent.

Ultraviolet rays would be preferable as in some cases they seem to be of value.

Bright's Disease

To the Editor:—I am a young man 21 years old. Two years ago because of a quantity of albumin in the urine a doctor diagnosed my ailment as acute Bright's disease. At the present time albumen is still present in small quantities at intervals, but in all this period there has never been noticeable a trace of it in the urine I pass immediately upon arising in the morning. Neither have I ever had one single symptom such as are said to accompany Bright's disease: swelling, dizziness, shortness of breath, high blood pressure, or dark spots before the eyes. However, my eyes are rather weak and, although I have a hearty appetite, I do not seem to weigh as much as I should—139 pounds being my average weight. I am 5 feet 11 inches in height. There are also times, but not every time by any means, when after being upon my feet for a long period I have a dull aching feeling in the vicinity of my kidneys. This ache disappears at such times immediately after I sit down. My bowels are not, perhaps, as open as they should be and at times I am subject to "heart burn." One thing I have noticed is the fact that when albumen is present, and when I have been working pretty steadily, I am bothered by a drawn feeling of the skin on my face, together with a tired, no-pep feeling. Now, from the information I have furnished you, and it is a true review of the facts in the case, would you say that: (1) I have chronic Bright's disease, keeping in mind, of course, that my main symptom is albumen; and, (2) if so, is it utterly impossible to effect a cure, no matter how long I try or what I do?

F. A. M., North Carolina.

Answer.—From the facts stated, the patient probably does not have Bright's disease, nor any type of true kidney disease, but the condition known as orthostatic albuminuria—in which albumin passes through the kidneys when one is in the upright position, but not while he is lying down. This occurs in persons of the type described—thin, tall, weedy persons who grew rapidly. The disease is usually accompanied by the signs of fatigue mentioned, drawing and aching in the abdomen, as well as general fatigue.

Usually the pulse pressure—that is, the difference between systolic and diastolic blood pressures—is lower in the upright than in the recumbent position, contrary to the normal situation, and almost always, the albumin fails to appear in the upright position if the urine is maintained alkaline. When present, the so-called albumin consists more of globulin and less of true albumin than in Bright's disease.

These tests, as well as absence or presence of casts, should aid in reaching a true diagnosis.

Artificial Pneumothorax

To the Editor:—I have often wished to learn something definite in regard to the pneumothorax treatment for those suffering from tuberculosis. Is the treatment practiced successfully to any great extent? I have known several persons who claim to have been cured by the treatment, but have known more who seem to suffer from apparent complications. Many soon develop "fluid" in the pleural sac and major complications follow. Is that condition due to the irritation from the treatment, or to the disease itself?

M. G. S., Washington.

Answer.—Artificial pneumothorax, or lung collapse, is now being generally practiced by physicians who specialize in the treatment of pulmonary tuberculosis. It consists in the introduction of an innocuous gas, as atmospheric air or nitrogen, into the chest cavity, between the lung and the chest wall. The presence of air in the chest allows the lung to collapse—to shrink down toward its "roots," while the blood supply is materially diminished. The lymphatics are likewise put out of action, so that there is less absorption of poisons from the diseased spots in the lung. Cavities are also compressed and tend to become much smaller.

If there have been attacks of pleurisy, the collapse of the lung may be incomplete, because pleurisy frequently leaves adhesions between the lung and the chest wall. The air thus introduced into the chest cavity is soon absorbed and must be frequently renewed. However, as the treatment progresses, the intervals between fillings become longer, so that, whereas the fillings at first are only two or three days apart, they are made at intervals of three or four weeks after the treatment has been well established.

In this country there have been few accidents accompanying pneumothorax, owing to improved technic. Nevertheless, in spite of all precautions, deaths have occurred on the table; their number has not been large, however, some operators who have done many "fillings" never having seen any untoward happening.

The appearance of fluid is not in itself an element of danger. In fact, not a few physicians find that those cases which have developed fluid do better, in the long run, than those which have not had this complication. Fluid is probably the direct result of the presence of air in the chest cavity. All in all, lung collapse has earned a place in the successful treatment of pulmonary tuberculosis.

Two things remain to be said: cases must be carefully selected for treatment, not all being suitable, and the patient must not expect that he will have the use of his collapsed lung again. He is fortunate if his collapsed lung remains forever lost; he can work with one lung well collapsed, if the other one is well. So many persons have been returned to a wage-earning capacity through this means that the place of artificial pneumothorax in the treatment of pulmonary tuberculosis is not questioned.

Near-Sightedness

To the Editor:—I have read somewhere that near-sightedness, or myopia, can be cured by muscular exercises, and that one does not need to wear glasses. Is this true? L. J. R., Montana.

Answer.—Myopia (near-sightedness) is that condition of the eye in which parallel rays of light come to a focus in front of the retina. The ordinary form of myopia is associated with an elongation of the front to back axis of the eye, so-called axial myopia.

Myopia is rarely congenital. It develops during the period of youth when the body grows most rapidly. A predisposition to myopia which is anatomical is a factor in its development. Conditions requiring the use of the eye for close work over a long period of time also cause near-sightedness.

If we accept the above definition as correct (and it is generally accepted by authorities on the eye and its diseases), it is inconceivable that exercise of either the muscles of the eye within or outside of the eye ball can modify the degree of near-sightedness present in a given case.

Myopia cannot be "cured" or removed by any known medical or surgical procedure. This defect of sight may be corrected by the use of concave glasses. Proper hygiene of the eye can do much, however, in the prevention of the development of myopia and in retarding its progress when once established.

CURRENT HEALTH ITEMS

WE HAVE 3.7 COLDS EACH YEAR

Bad weather and wet feet are not to blame for colds. The lack of relationship between colds and the weather is demonstrated by a recent survey of the U. S. Public Health Service, commented on by Malcolm MacDonald in *Popular Science Monthly* for April.

Each of us, on the average, suffers from 3.7 colds each year. October is the worst month of the year for colds and January the next greatest offender. From January on to June, the survey shows, respiratory disorders gradually lessen.

Persons in Massachusetts, California, Louisiana, Illinois and Montana seem to have colds at the same season, climate notwithstanding.

What, then, is the cause of colds? It is generally known now that colds are caused by a germ and that they are highly contagious. However, the U. S. Public Health Service survey indicates that there is no exchange of infection among various parts of the country, such as Arizona and New York, where persons have attacks simultaneously.

If one is in the path of a lusty sneeze, he is more likely to catch cold than if he is exposed to severe weather or gets his feet wet, says *Popular Science*. Indoor workers are more likely to catch cold than those who, like telephone linemen, work in the open air. The lineman, however, if subjected to the continued weakening effects of extreme exposure, becomes more susceptible to the much graver menace of pneumonia.

Four ways to avoid a cold are to get plenty of sleep in a well ventilated room, take a cold dip and then a brisk rub in the morning, avoid overeating, and take vigorous outdoor exercise daily.

IS GOING TO SCHOOL HAZARDOUS?

With an average of six school fires each day in the United States, it would seem that the acquiring of an education may yet come to be called among the hazardous occupations, remarks the organ of the National Board of Fire Underwriters, which in a recent issue has as its leading article "Consider the Schoolhouse."

"If the local theater is inadequately served by exits, one is not obliged to frequent it," says the bulletin. "Nor is it necessary to register at an unsafe hotel, attend a church that is poorly built or patronize a hazardous hospital. Generally speaking, a person may discriminate in choosing the roofs that shall afford him shelter, day and night, in sickness and in health."

With schools, however, it is otherwise. Children are compelled to go to school and in literally thousands of cases, the bulletin declares, conditions are appalling from the standpoint of fire.

Nine out of every ten schools in the United States, says the committee on safety to life of the National Fire Protection Association, are veritable fire traps. Six school buildings are attacked by fire every day of the year; that, at any rate, was the showing for the five-year period of 1919-1923.

Only one factor has kept the number of casualties at all within bounds, it is said. That is the fire drill. But the fire drill is not a substitute for safe construction; it merely reduces the consequences of fires that never should be allowed to occur.

Locally, the subject of school fire safety is one that deserves the closest investigation by women's clubs, chambers of commerce and other civic organizations, for where there is concerted and determined action of this kind, hazards will be corrected.

RAPID EATERS HAVE PIMPLES

Fully one half of the persons with pimples, or acne, who come to him for treatment are rapid eaters, says Dr. Harvey P. Towle, Boston physician, in writing for the March *Hospital Social Service* on "Diet in Diseases of the Skin."

In many cases of red, blotchy rashes over the face and body, rapid eating and the consequent overburdening of the digestion seem to play a large part in the causation, Dr. Towle declares.

If we overburden the digestion in any way, we are apt to set up a reflex disturbance in the skin. One form of burden is caused by food which is not easily digested; that is, the quality of the food. This form of overburdening is less common than that due to imperfect mastication and the accompanying habit of washing the food down whole. Such persons habitually overeat and are more prone than others to skin diseases.

THE COUNTRY SCHOOL CAFETERIA

Many rural school children never have a chance to see a cafeteria or even know what one is, says Miss Mary Agnes Davis of Teachers College, Columbia University, in writing on "The School Lunch" in *Normal Instructor and Primary Plans*.

The cafeteria counter can be improvised very easily in the country school, so that the rural children, like their city cousins, may go to the school cafeteria every day for lunch.

Stove and table on which the food is prepared can be used as the cafeteria counter, the food being placed on it in an attractive manner and in the order in which it should be chosen for a well balanced meal. Two or three pupils who have helped to prepare the lunch may serve it. The remaining pupils may then form in line in front of the counter and select the foods they desire.

NEW HEALTH HAZARDS FOR OLD

A striking example of the substitution of new hazards for old is in the mirror industry, says Minnie McMahon, factory inspector in the *Industrial Hygiene Bulletin* for March.

Mercury poisoning formerly was the great hazard of the mirror industry. Industrial processes have changed and today the silvering of mirrors is a process in which nitrate of silver has replaced the mercury amalgam.

Constant exposure to and absorption of silver nitrate will cause pigmentation and nervous and gastrointestinal disturbances, medical authorities agree.

Workers exposed to the solution of silver nitrate have found that sodium cyanide will remove the black discoloration from the skin, so in many mirror factories sodium cyanide is kept for this purpose. If the hands are not thoroughly cleansed with soap and hot water, some of the material will remain on the skin so that if food is handled or the fingers are carelessly put in the mouth, as is done by tobacco chewers, a serious or fatal accident may occur.